



Samba Pa Ti, TP52 — Sharon Green photo



WINCHES

Radial REVOLUTION



HARKEN ITALY'S TECHNICAL DIRECTOR ANDREA MERELLO TELLS THE INSIDE STORY BEHIND THE DEVELOPMENT OF RADIAL WINCHES

Editor's Note: Harken entered the winch business in 1987, adapting original Barbarossa designs for Harken's standard line and adding a pure Grand Prix racing line. Grand Prix racers have always demanded constant innovation, but most sailors just wanted solid, efficient winches that would last for 30 years. Now sailors and boatbuilders want all that and more—faster installations, easier maintenance, and simpler upgrades.

"We started from a blank sheet of paper, addressing the needs of specific types of sailors."

— Andrea Merello
Technical Director

A Blank Sheet of Paper

Radial winches were designed from the deck up with three key ideas in mind: safety and long-lasting performance, streamlined installations, and hydraulic and electric upgrades as integral parts of the design rather than afterthoughts. We started from a blank sheet of paper, addressing the needs of specific types of sailors. For example, racers mainly want the most power for the lightest weight. A cruiser with a child on the other hand asks, "Wait a minute, if my kid puts hands on the winch while the electric power is turning it ..." They are more concerned with safety.



Radial REVOLUTION



New Product, New Process

No winch line has ever been designed with yacht builders in mind. No one asked, "What can we do to help boatbuilders who assemble in bigger quantities?" That's because if you went to a boatbuilding yard 10 years ago, they weren't using the highly efficient "lean" assembly systems used in automotive companies. These days, there's a bigger focus on the time required to install a winch, the weight and ease-of-handling from a worker's point of view, and the complexity of the assembly process.

Grip with a Twist

The grip is one of the most critical areas of a winch. With a high-friction drum there will be more line wear, so designers must balance the need for controlled easing with line longevity. We also have to consider that the winch is interfacing with a product we don't make—we needed to find a grip that performed as well with high-tech line as with older cordage. So while we were happy with the sandblasting and knurling we had before, we wanted to find out if there was more we could do.

The new grip is very different from other winches with grooves or ribs. Other winches tend

to push the line wraps up when easing. The Radial grip works more like a screw, driving the wraps down when easing to keep them on the part of the drum where you have the best control.

"The Radial grip works more like a screw, driving the wraps down when easing [for] the best control."

— Andrea Merello
Technical Director



20 SERIES

35 SERIES

40 SERIES

46 SERIES



What Lean Manufacturing Means For You

By Adriano Rubinaccio
Production Director

When we started talking about this project our aim was to use it as an opportunity to dramatically improve not just the product, but also the process. We wanted to actually change the company's manufacturing culture so we could increase production speed and eliminate waste while maintaining—even improving—the level of quality. We adopted “lean manufacturing” principles to increase speed and implemented a very simple “zero defect” approach. No defective components or products are allowed to move to the next step in the process. Any worker can stop a product moving through the process if a problem appears, and every worker is directly responsible for customer satisfaction.

Winch Abuse

Each size of each winch had to pass a minimum of 13 tests covering things such as wet and dry line grip, pulling power versus number of wraps, stress deformation, ease of servicing, and safety. The most grueling test was the endurance test, where our parameter was to have little to no wear after thousands of nonstop pulls at the Maximum Working Load.

Combating Corrosion

Extensive testing helped us determine weak points for corrosion, where we needed to either replace or strengthen the materials we were using. We even removed the drum and lubrication for certain tests to see how well the internal components resisted corrosion from saltwater spray. The results of these tests are why we're using more stainless and one of several reasons we use composites in Radials. For example, the extremely strong “metal replacement” material we use in the roller bearings is completely nonreactive to saltwater and most chemicals, has very good wear and abrasion resistance under tremendous loads, doesn't require lubrication, and doesn't gall or seize. Its low friction and hardness properties make it ideal for high-efficiency bearing systems.

“We implemented a very simple ‘zero defect’ approach.”

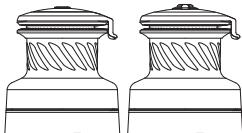
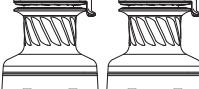
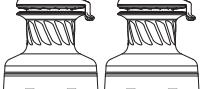
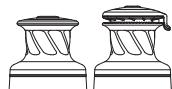
— Adriano Rubinaccio
Production Director

Winch #001

Product tracking is one benefit of the new process. Every molded component has a batch number, allowing for much tighter quality control. In addition, each finished product has a serial number (#001 is already in the museum). Customers calling in for support benefit directly because we can access very specific information on that customer's winch.

The Future

“No comments! No comments!” I can't go into details of course, but I can say we designed the Radial to be flexible and may add more options for end customers. Beyond the Radial, we're working on some totally new ideas at Harken for needs that aren't addressed by current winches. The prototypes haven't completed testing yet, but keep an eye out in the upcoming months.



Complete Radial Line: aluminum and chrome; plain-top and self-tailing; electric and hydraulic; UniPower; Quattro

Radial Winches



POWERFUL, EFFICIENT, DEPENDABLE

We have reached a new level of performance with the introduction of our Radial Winch line. Details you'll like include reduced wear on the line: the gripping surfaces of Radial Winches are shaped and do not depend on friction to hold the line. Also, we've completely covered the winch tops so fingers and clothing don't get caught in moving parts. Seasonal maintenance is now exceptionally easy—the top lifts out as a single unit, making reassembly quick and mistake-free.

DETAILS MAKE THE DIFFERENCE

MULTIPLE STYLES AND FINISHES

Radial winches are available in aluminum alloy and chrome. Choices include 1-, 2-, and 3-speed self-tailing or plain-top styles; and manual, electric or hydraulic drives.

INTEGRATED STRIPPER ARM

The strong, one-piece stripper arm completely covers the winch top for a stable platform that prevents fingers and clothing from catching in moving parts—an important safety feature, particularly when operating powered winches. The arm can be adjusted to multiple positions after the winch is mounted, and is shaped to smoothly feed line into and out of the self-tailing jaws.

LIGHTWEIGHT, HIGH-STRENGTH MATERIALS

Composite roller bearings and bushings reduce friction under load, have excellent corrosion resistance, and don't require lubrication.

Snap-fit design keeps bearings captive in high-strength Delrin® cage when drum is removed for maintenance.

Load-carrying gears and pins are 17-4PH stainless steel for strength and durability.

Weight savings of 25 to 50 percent compared to the Classic Harken line.

EASY TO SERVICE AND MAINTAIN

Winches can be disassembled and serviced on deck. The socket, washer, and screw-top snap-fit together to simplify maintenance and for mistake-free assembly.



1. Power-Grip Jaws

Composite self-tailing jaws of long-glass fiber are shaped for easy line entry and optimum gripping power.

The spring-loaded upper jaw adjusts under line pressure to accept a variety of line sizes. Teeth grip evenly with or without load.

2. Radial Shaped Surface Grip

The drum's gripping surface is shaped for each winch size and drum material and features diagonal ribs (rather than textured abrasive materials) to maximize gripping power and greatly reduce line wear. When easing, the angle of the ribs stops line from rising, preventing overrides and providing a smooth controlled release as the line exits the winch.

3. Quick Installation

Patent-pending stud-bolt mounting system allows one person to quickly install a winch without removing the drum.

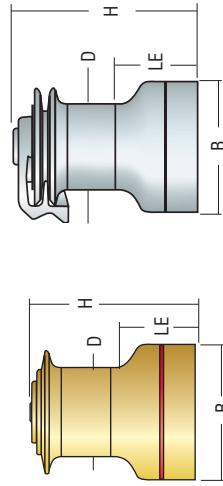
a. Snap off the skirt at the base of the winch.

b. Slide bolts through the slots in the winch base and snap the plastic skirt back on.

c. Place the stud bolts into the predrilled holes on the deck and tighten from belowdeck.

Stainless Steel, All-Chrome, & Bronze

Ordering Information:
Specify material by adding
letter code to part number.
See chart for availability.



Part No.	Materials						Height (H) in mm	Base (B) in mm	Drum (D) in mm	Weight lb kg	CCG/BBA CCC/CSC/BBB	SSS BAA	Line Ø (Min - Max) in mm	Line entry height (LE) in mm	Fastener circle in mm	Fasteners in mm	Gear ratio	Power ratio	
	CCA	CCC	CCS	SSS	BAA	BBB													
Classic Plain-Top																			
B6	✓	—	—	✓	—	2 ¹ / ₂	60	3 ⁹ / ₁₆	90	2.9	1.3	—	—	—	—	1 ⁵ / ₁₆	33	2 ¹ / ₁₆	
B8	✓	—	—	✓	—	2 ¹¹ / ₁₆	68	4 ¹ / ₂	115	3 ⁹ / ₁₆	90	4.6	2.1	—	—	1 ¹ / ₂	38	3 ¹ / ₁₆	
B16.2	—	✓	—	✓	✓	2 ⁹ / ₁₆	70	4 ³ / ₄	120	4 ⁷ / ₁₆	112	—	8.2	3.7	—	—	2	50	3 ¹ / ₁₆
B32.2	—	✓	—	✓	✓	2 ¹⁵ / ₁₆	74	5 ¹ / ₂	137	5 ¹ / ₂	134	—	10.4	4.7	—	—	2 ⁹ / ₁₆	70	4 ¹ / ₈
B40.2	✓	—	—	✓	✓	3	76	5 ¹ / ₁₆	145	5 ¹ / ₁₆	148	—	13.2	6	—	—	2 ⁹ / ₁₆	70	4 ¹ / ₁₆
B980.2	—	—	—	✓	✓	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ³ / ₄	298	—	94.8	43.0	—	—	5 ¹³ / ₁₆	148	8 ⁷ / ₈
B980.3	—	—	—	✓	✓	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ³ / ₄	298	—	94.8	43.0	—	—	5 ¹³ / ₁₆	148	8 ⁷ / ₈
B1111.3PT	—	—	—	✓	✓	11 ¹ / ₂	280	14 ⁵ / ₁₆	360	9 ¹ / ₂	236	—	—	—	—	—	3 ³ / ₈	80	10 ⁵ / ₁₆
Classic Self-Tailing																			
B16ST	—	✓	—	✓	✓	2 ¹ / ₂	70	4 ¹ / ₄	120	5 ¹ / ₁₆	142	—	9	4.1	—	—	1 ¹ / ₂	2	50
B32.2ST	—	✓	—	✓	✓	2 ¹⁵ / ₁₆	74	5 ¹ / ₁₆	139	6 ⁷ / ₁₆	164	—	12.1	5.5	—	—	5 ¹ / ₁₆	12	2 ¹ / ₄
B40.2ST	—	✓	—	✓	✓	3	76	6	152	6 ¹⁵ / ₁₆	176	—	15	6.8	14.8	6.7	5 ¹ / ₁₆	12	2 ¹ / ₄
B44.2ST	—	✓	—	✓	✓	3 ⁵ / ₈	92	6 ¹ / ₄	172	7 ³ / ₄	196	—	20.9	9.5	20.5	9.3	5 ¹ / ₁₆	14	3 ¹ / ₈
B46.2ST	—	✓	—	✓	✓	4	102	6 ¹⁵ / ₁₆	176	8 ⁷ / ₁₆	210	—	25.5	11.55	—	—	5 ¹ / ₁₆	14	3 ¹ / ₈
B48.2ST	—	✓	—	✓	✓	4	102	7 ¹ / ₁₆	189	8 ¹ / ₂	222	—	30	13.6	29.8	13.5	5 ¹ / ₁₆	14	3 ¹ / ₈
B53.2ST	—	✓	—	✓	✓	4 ⁷ / ₁₆	112	8 ¹ / ₂	221	9 ¹ / ₁₆	245	—	39	17.7	—	—	5 ¹ / ₁₆	14	4 ¹ / ₁₆
B60.2ST	—	✓	—	✓	✓	4 ³ / ₄	120	8 ¹ / ₂	225	10 ⁵ / ₁₆	270	—	—	—	53.6	24.3	4 ¹⁵ / ₁₆	125	7 ¹ / ₁₆
B70.2ST	—	✓	—	✓	✓	5 ¹ / ₄	130	9 ¹ / ₂	245	12 ¹ / ₂	308	—	—	—	—	5 ¹ / ₂	150	8 ¹ / ₂	
B70.3ST	—	✓	—	✓	✓	5 ¹ / ₈	130	9 ⁵ / ₁₆	245	12 ¹ / ₂	308	—	—	—	—	5 ¹ / ₂	150	8 ¹ / ₂	
B74.2ST	—	✓	—	✓	✓	5 ⁷ / ₈	150	10 ¹ / ₁₆	265	11 ¹³ / ₁₆	300	—	—	—	—	5 ¹ / ₂	150	8 ¹ / ₂	
B74.3ST	—	✓	—	✓	✓	5 ⁷ / ₈	150	10 ¹ / ₁₆	265	11 ¹³ / ₁₆	300	—	—	—	—	5 ¹ / ₂	150	8 ¹ / ₂	
B980.2ST	—	✓	—	✓	✓	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ⁹ / ₁₆	300	—	—	—	—	5 ¹ / ₂	150	8 ¹ / ₂	
B980.3ST	—	✓	—	✓	✓	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ⁹ / ₁₆	300	—	—	—	—	5 ¹ / ₂	150	8 ¹ / ₂	
B1120ST	—	✓	—	✓	✓	11 ¹³ / ₁₆	300	16 ⁵ / ₁₆	418	14 ⁹ / ₁₆	370	—	—	—	—	9 ¹ / ₁₆	14	25	
B1140ST	—	✓	—	✓	✓	14 ³ / ₁₆	360	22 ¹ / ₂	562	18 ³ / ₁₆	462	—	—	—	—	3 ¹ / ₄	19	32	
B1150ST	—	✓	—	✓	✓	16 ⁷ / ₃₂	410	25 ⁵ / ₁₆	640	19 ³ / ₄	502	—	—	—	—	9 ¹ / ₁₆	14	25	
Modern Self-Tailing																			
B1130.3ST*	—	✓	—	✓	✓	10 ³ / ₃₂	279	13 ¹ / ₃₂	339	9 ⁹ / ₁₆	246.5	—	—	—	—	74.2	33.6	5 ¹ / ₁₆	
B1135.3ST*	—	✓	—	✓	✓	12 ¹ / ₃₂	324	16 ¹ / ₃₂	409	12 ¹ / ₈	308	—	—	—	—	9 ¹ / ₁₆	14	25	

*4-Speed option available. Contact Harken

Ordering Winches

1. Choose Drum Material, Speed & Style

Aluminum: Aluminum Radial winches in 1-, 2-, and 3-speed self-tailing or plain-top.

Aluminum Classic single-speed, plain-top winches in sizes 6 and 8; 2- and 3-speed self-tailing winches sizes 980 and up in aluminum or aluminum/stainless.

Chrome: Chrome Radial winches feature chrome drums with black composite bases and tops; 1-, 2-, and 3-speed self-tailing.

All-chrome Classic winches have chrome bases, drums, and tops; 1-, 2- and 3-speeds; self-tailing or plain-top.

Stainless Steel: Stainless steel winches have stainless bases, drums, and tops; 2-, and 3-speed self-tailing; 4-speed winches in some larger sizes.

Bronze: Bronze winches in 1-, 2- and 3-speeds; self-tailing or plain-top styles.

Carbon Fiber: Carbon fiber winches in 2- and 3-speed self-tailing or top-cleating.

To order large cruising, Megayacht and Grand Prix racing winches, please contact Harken.

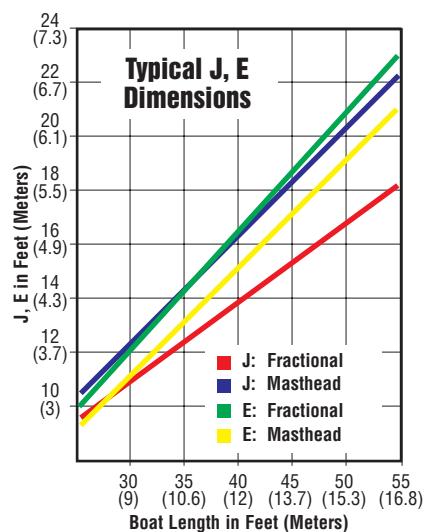
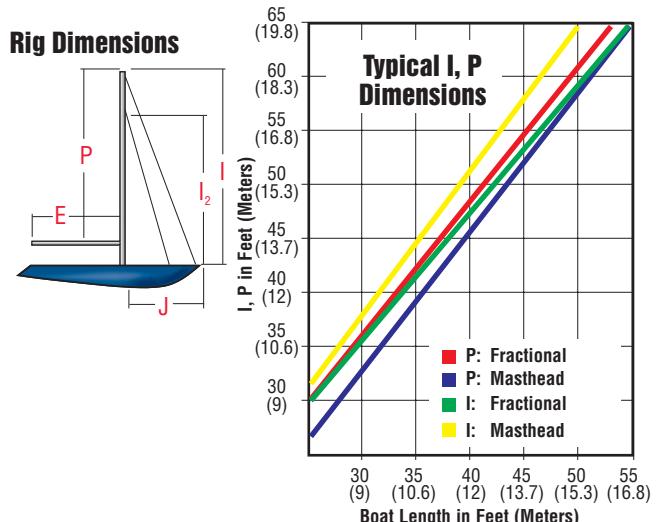
Powered Winches: Choose electric or hydraulically driven winches and components. To order hydraulic winches, please contact Harken.

2. Determine size

The **Sizing Chart** selects winches for different applications and rig dimensions. If unsure of the dimensions, use the **Typical Dimensions** graphs. To order large Grand Prix and Megayacht winches, please contact Harken.

3. Choose Ball Bearing Handle

Plain or lock-in handles in chromed bronze, bronze and aluminum; Speedgrip and Standard styles in 8- and 10-inch (203- and 254-mm) lengths.



Sizing Chart

Winch size	Genoa		Mainsail						Spinnaker			Staysail		
	Sheet		Halyard		End-boom mainsheet		Halyard		Reef		Sheet		Halyard	
	Max sail area 100% foretriangle (I x J x .5) ft ²	m ²	Max I ft	Max I m	4:1 Sheet max sail area (P x E x .5) ft ²	m ²	Max P ft	Max P m	Max P ft	Max P m	Max I ft	Max I m	Max I ft	Max I m
6	75	7	25	7.6	—	—	25	7.6	34	10.4	500	46.5	25	7.6
8	115	10.5	36	11	150	14	32	9.8	40	12.2	800	74	36	11
16	155	14.5	42	12.8	230	21	38	11.6	46	14	975	91	42	12.8
20	155	14.5	42	12.8	230	21	38	11.6	46	14	975	91	42	12.8
32	225	21	48	14.6	335	30	43	13.1	53	16.2	1135	105	48	14.6
35	225	21	48	14.6	335	30	43	13.1	53	16.2	1135	105	48	14.6
40	270	25	54	16.5	410	38	49	14.9	57	17.4	1240	115	54	16.5
44	340	31.5	64	19.5	560	52	59	18	68	20.7	1400	130	64	19.5
46	365	34	69	21	625	58	64	19.5	73	22.2	1530	142	68	20.7
48	390	36	73	22.2	700	65	68	20.7	78	23.8	1750	162	74	22.5
50	390	36	73	22.2	700	65	68	20.7	78	23.8	1750	162	74	22.5
53	435	40	77	23.5	765	72	73	22.2	85	25.9	1960	182	79	24
60	525	49	82	25	850	79	80	24.4	92	28	2200	204	85	25.9
70	590	55	86	26.2	1000	93	85	25.9	97	29.6	3000	279	91	27.7
74	950	88	100	30.5	1350	125	102	31.1	—	—	—	105	32	—
80	950	88	100	30.5	1350	125	102	31.1	—	—	—	105	32	—

Captive Reel Winches

Harken® Captive Reel winches, produced by James Nilsson Winchmakers, provide a convenient push-button solution for megayachts and large cruising boats. Featuring a one- or two-speed hydraulic motor, they are noted for their reliable design, detailed construction, and quality materials.

Components

Modular construction allows servicing without removing the winch assembly. The Hardkote-anodized frame and components are marine-grade 5083 and 6000 aluminum. Lubricated bearings are sealed and dry-run bearings are made with low-maintenance synthetics.

Gearbox

The hub-drive gearbox inside the 316 stainless steel drum uses precision gearing to time the lead screw for exact line placement.

Switches

Proximity switches prevent over-travel. Automatic failsafe switches shut down the winch completely.

Valve block and tensioner

Mounted onto or independently from the winch, the valve block incorporates a counterbalance valve, brake operating shuttle, and line tensioner. The tensioner spools line onto the drum evenly and keeps it clear of the winch housing.

Precise gearing provides even line take-up and release

Automatic disc brake between motor and gearbox is always locked unless system is activated

Choice of port or starboard lead exits

Line tensioner removes slack when spooling and unspooling



Redundant proximity switches prevent over-travel

Lead screw and sheave allow line to lie smoothly on the drum—even when slack



Power/Sheet Size Guide

Part No.	Pull		Hold		Min		Max		Max pressure		Flow rate	
	lb	kg	lb	kg	in	mm	in	mm	PSI	Bar	gal/min	L/min
CR22SL	3300	1500	3900	1800	1/2	12	5/16	14	2247	155	14.74	56
CR27SL	5292	2400	6615	3000	1/2	12	5/8	16	3045	210	15.79	60
CR33SLLT	2205	1000	2646	1200	1/2	12	5/8	16	2465	170	10.00	38
CR33SL	8820	4000	11025	5000	1/2	12	19/16	20	3480	240	23.68	90
CR33SLHD	11025	5000	15436	7000	1/2	12	13/16	20	2683	185	36.84	140
CR40SL	17640	8000	24256	10000	5/8	16	1	26	3118	215	52.63	200
CR40SLHD	24256	11000	28666	13000	5/8	16	1	26	3698	255	52.63	200
CR50SL	26461	12000	30871	14000	3/4	18	1 1/16	30	3118	215	68.42	260
CR50SLHD	33076	15000	39691	18000	3/4	18	1 1/16	30	3408	235	68.42	260

Loads and converted sizes are guides only. Winches are customized to application. Line speeds can vary with each winch and power configuration

Active Line Storage Guide

Line Ø		CR22SL		CR27SL		CR33SLLT		CR33SL		CR33SLHD		CR40SL		CR40SLHD		CR50SL		CR50SLHD	
in	mm	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m
1/2	12	56	17	115	35	131	40	157	48	213	65	—	—	—	—	—	—	—	—
5/16	14	46	14	98	30	112	34	131	40	184	56	—	—	—	—	—	—	—	—
5/8	16	—	—	89	27	98	30	115	35	161	49	200	61	276	84	—	—	—	—
11/16	18	—	—	—	—	—	—	101	31	141	43	177	54	243	74	220	67	312	95
3/4	20	—	—	—	—	—	—	92	28	128	39	157	48	217	66	197	60	279	85
7/8	22	—	—	—	—	—	—	—	—	—	—	141	43	197	60	177	54	253	77
15/16	24	—	—	—	—	—	—	—	—	—	—	131	40	180	55	164	50	230	70
1	26	—	—	—	—	—	—	—	—	—	—	118	36	165	50	151	46	213	65
1	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	138	42	197	60
13/16	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	131	40	184	56

Line storage lengths are guides only. Winches are customized to application

NEW

RADIAL WINCH LINE

Aluminum Radial

Aluminum Radial winches are designed for sailors who want lightweight, extremely strong winches with plenty of power.

The drum's gripping surface is shaped for each winch size and drum material and features diagonal ribs (rather than textured abrasive materials) to maximize gripping power and greatly reduce line wear. When easing, the angle of the ribs stops line from rising, preventing overrides and providing a smooth controlled release as the line exits the winch.

Aluminum drums and high-strength composite self-tailing jaws and skirt save weight. Composite roller bearings reduce friction under load and don't require lubrication. Load-carrying gears and pins are 17-4PH stainless steel for strength and durability.

Small boat winches are available in single speed. Self-tailing models sizes 60 and up come in two or three speeds.



RADIAL PLAIN-TOP



RADIAL SELF-TAILING



Series 20 Radial winches use composite bushings to handle high loads in a small package.



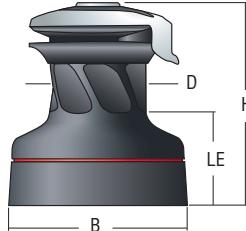
1. Roller Bearings

Snap-fit design keeps bearings captive in a high-strength Delrin® cage when drum is removed for maintenance.

Composite roller bearings don't require lubrication.

2. Gripping surface

Each winch size has its own radial grip shape to optimize holding power and for smooth, controlled easing.



Part No.	Ø				Line entry height (LE)	Line Ø (Min - Max)	Fastener circle	Fasteners (SH or HH)	Gear ratio			Power ratio										
	Drum (D) in mm	Base (B) in mm	Height (H) in mm	Weight lb kg					1	2	3	1	2	3								
Classic Plain-Top																						
B6A	2 3/8	60	3 1/16	90	3 1/4	82	1.5	.7	1 5/16	33	—	2 9/16	65	6 x 1/4*	6 x 6*	1	—	—	8.4	—	—	
B8A	2 11/16	68	4 1/2	115	3 1/16	90	2.4	1.1	1 1/2	38	—	3 9/16	90	4 x 5/16*	4 x 8*	1	—	—	7.5	—	—	
Radial Plain-Top																						
20.2PTA	2 1/8	73	5 3/8	137	5 1/16	128	4.4	2.0	2 3/8	61	—	4 3/8	110	5 x 1/4	5 x 6	1	2.76	—	6.95	19.20	—	
35.2PTA	3 1/8	80	5 7/8	149	5 13/16	148	6.8	3.1	3 1/8	79	—	4 7/8	123	5 x 1/4	5 x 6	2.13	5.65	—	13.50	35.90	—	
40.2PTA	3 1/8	80	6 3/16	157	6	153	7.7	3.5	3 1/4	82	—	4 7/8	123	5 x 1/4	5 x 6	2.13	6.28	—	13.50	39.90	—	
46.2PTA	3 7/8	100	7 1/4	184	7 15/16	179	11.3	5.1	3 9/16	90	—	5 7/8	150	5 x 5/16	5 x 8	2.30	9.17	—	11.70	46.50	—	
50.2PTA	4 9/16	110	7 5/8	194	7 1/2	190	13.0	5.9	3 7/8	97	—	5 7/8	150	5 x 5/16	5 x 8	2.40	10.90	—	10.90	50.40	—	
Radial Self-Tailing																						
20.2STA	2 7/8	73	5 3/8	137	5 13/16	148	5.3	2.4	2 3/8	61	1/4 - 1/2	6 - 12	4 3/8	110	5 x 1/4	5 x 6	2.76	—	—	19.20	—	—
35.2STA	3 1/8	80	5 7/8	149	6 11/16	170	7.9	3.6	3 1/8	79	5/16 - 1/2	8 - 12	4 7/8	123	5 x 1/4	5 x 6	2.13	5.65	—	13.50	35.90	—
40.2STA	3 1/8	80	6 3/16	157	6 7/8	175	8.4	3.8	3 1/4	82	5/16 - 1/2	8 - 12	4 7/8	123	5 x 1/4	5 x 6	2.13	6.28	—	13.50	39.90	—
46.2STA	3 7/8	100	7 1/4	184	7 15/16	201	11.5	5.2	3 9/16	90	5/16 - 3/16	8 - 14	5 7/8	150	5 x 5/16	5 x 8	2.30	9.17	—	11.70	46.50	—
50.2STA	4 9/16	110	7 5/8	194	8 1/8	206	13.2	6.0	3 7/8	97	5/16 - 3/16	8 - 14	5 7/8	150	5 x 5/16	5 x 8	2.40	10.90	—	10.90	50.40	—
60.2STA	4 1/4	120	9 1/8	232	9 13/16	246	22.5	10.2	4 9/16	116	5/16 - 5/8	8 - 16	8	204	6 x 5/16	6 x 8	4.80	14.40	—	20.30	61.00	—
60.3STA	4 1/4	120	9 1/8	232	9 13/16	246	25.8	11.7	4 9/16	116	5/16 - 5/8	8 - 16	8	204	6 x 5/16	6 x 8	2.20	4.80	14.40	9.20	20.30	61.00
70.2STA	5 1/8	130	9 7/16	240	10 1/16	256	24.9	11.3	4 1/2	115	3/8 - 11/16	10 - 18	8 1/8	205	6 x 5/16	6 x 8	5.70	22.30	—	22.20	72.00	—
70.3STA	5 1/8	130	9 7/16	240	10 1/16	256	28.3	12.8	4 1/2	115	3/8 - 11/16	10 - 18	8 1/8	205	6 x 5/16	6 x 8	2.30	5.70	22.30	9.00	22.20	72.00
80.2STA	6 7/8	175	11 5/16	287	12 9/16	320	46.8	21.2	6 7/16	164	3/8 - 13/16	10 - 20	9 9/16	233	8 x 3/8	8 x 10	9.40	28.10	—	32.10	93.00	—
80.3STA	6 7/8	175	11 5/16	287	12 9/16	320	50.1	22.7	6 7/16	164	3/8 - 13/16	10 - 20	9 9/16	233	8 x 3/8	8 x 10	2.23	9.40	28.10	6.50	32.10	93.00

*Classic plain-top winches use flat head (FH) fasteners

NEW

RADIAL WINCH LINE

Aluminum Radial Quattro

The patented Quattro is an innovative all-in-one winch used on boats that require extremely fast winches to handle large asymmetrical spinnakers, but also need power to trim the genoa upwind.

Radial Quattro winches are offered in lightweight aluminum alloy and feature composite self-tailing jaws and skirt to save weight. High-strength composite roller bearings reduce friction under load and don't require lubrication. Load-carrying gears and pins are 17-4PH stainless steel for strength and durability.

The Quattro features two drum diameters and four line speeds. The upper drum features Harken's new shaped radial grip for reduced sheet wear and controlled easing. The wide-diameter lower drum has a sand-blasted gripping surface used for fast trimming.



40STQ
46STQ

Team Heiner 38, VO70 — Marc Antony Taminiau photo

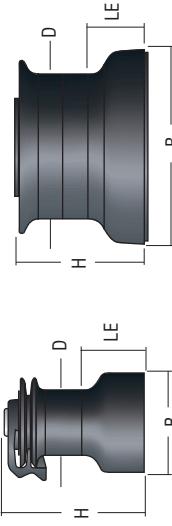


The upper drum's gripping surface is shaped for each winch size to reduce line wear and to provide maximum gripping power for smooth, controlled easing.

Part No.	Gear ratio		Power ratio		Fastener circle		Fasteners (SH or HH)	
	1	2	1	2	in	mm	in	mm
40STQ	2.13	6.28	13.50	39.90	4 ⁷ / ₈	123	5 x 1 ¹ / ₄	5 x M6
46STQ	2.30	9.17	11.70	46.50	5 ⁷ / ₈	150	5 x 5 ⁵ / ₁₆	5 x M8

Part No.	Drum Ø				Base Ø				Weight				Line Ø				Line entry height				
	Lower		Upper		Ø		Height		lb		kg		Min		Max		Lower		Upper		
40STQ	6 ¹ / ₁₆	154	3 ¹ / ₈	80	7 ¹ / ₈	180	6 ⁷ / ₈	175	10.2	4.6	5 ⁵ / ₁₆	8	1 ¹ / ₂	12	1 ⁵ / ₁₆	34	3 ¹ / ₄	82			
46STQ	7 ¹³ / ₃₂	188	3 ¹⁵ / ₁₆	100	8 ¹ / ₂	218	7 ¹⁵ / ₁₆	201	13.7	6.2	5 ⁵ / ₁₆	8	9 ⁹ / ₁₆	14	15 ¹⁵ / ₁₆	23	3 ⁹ / ₁₆	90			

Carbon Fiber



Base riser required to mount
B50, B55, and B65 winches
above deck. Specify above
deck or flush deck version
when ordering.

Use base sheaves for cross-
sheeting and lazy sheets.
Availability varies by winch size.

Part No.	Drum (D) in	Base (B) in	Height (H) mm	Weight lb	Weight kg	Line Ø mm	Min in	Max in	Line entry height (LE) mm	Fastener circle mm	Fasteners in	Fasteners mm	Gear ratio			Power ratio										
													1	2	3	4										
B480TCR	4 ³ / ₄	120	7 ³ / ₃₂	188	8 ³ / ₁₆	208	17.4	7.9	—	—	3 ⁵ / ₁₆	92	6 ¹ / ₈	155	6 ⁵ / ₁₆ HH	6 ⁸ / ₁₆ HH	1:1	2.5:1	10:1	—	4:2:1	10:8:1	43:1	—		
B50.25TR	4 ⁹ / ₁₆	116	7 ¹ / ₄	184	6 ⁵ / ₈	168	11.7	5.3	5 ¹ / ₁₆	8	2 ⁹ / ₁₆	65	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	2.7:1	11:4:1	—	—	11:7:1	50:7:1	—	—		
B50.35TR	4 ⁹ / ₁₆	116	7 ¹ / ₄	184	6 ⁷ / ₈	175	13.7	6.2	5 ¹ / ₁₆	8	2 ⁹ / ₁₆	65	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	2.7:1	11:4:1	—	4:4:1	11:7:1	49:8:1	—		
B500.2STR	4 ⁹ / ₁₆	116	7 ¹ / ₄	184	6 ⁵ / ₈	168	11.0	5.0	5 ¹ / ₁₆	8	9 ¹ / ₁₆	65	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	2.7:1	11:4:1	—	—	11:7:1	50:7:1	—	—		
B500.3TR	5 ¹ / ₈	130	7 ¹ / ₄	184	6 ¹ / ₈	175	13.7	6.2	5 ¹ / ₁₆	8	2 ⁹ / ₁₆	55	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	2.7:1	11:4:1	—	3 ⁹ / ₁₆	10:4:1	44:5:1	—		
B530TCR	5 ¹ / ₈	130	8 ¹ / ₁₆	218	9 ¹ / ₁₆	243	23.8	10.8	—	—	4 ³ / ₈	111	7 ¹ / ₃₂	180	6 ³ / ₁₆ HH	6 ⁸ / ₁₆ HH	1:1	3.1:1	12:1	—	3 ⁹ / ₁₆	12:1	47:1	—		
B55.25TR	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₁₆	199	20.9	9.5	5 ¹ / ₁₆	8	5 ¹ / ₁₆	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	16:3:1	—	—	15:7:1	55:6:1	—	—		
B55.2STAC	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₁₆	199	—	—	5 ¹ / ₁₆	8	5 ¹ / ₁₆	85	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	16:3:1	—	—	15:7:1	55:6:1	—	—		
B55.35TR	5 ¹ / ₈	149	10	255	8 ²⁹ / ₃₂	226	11.8	5 ¹ / ₁₆	8	5 ¹ / ₁₆	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	16:3:1	—	3 ⁴ :1	15:7:1	55:6:1	—			
B55.3TICR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	25.4	11.5	—	—	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	16:3:1	—	3 ⁴ :1	15:7:1	55:6:1	—		
B65.25TR	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₁₆	199	20.9	9.5	5 ¹ / ₁₆	8	5 ¹ / ₁₆	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	19:2:1	—	—	15:7:1	65:5:1	—	—		
B65.2STAC	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₁₆	199	—	—	5 ¹ / ₁₆	8	5 ¹ / ₁₆	85	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	19:2:1	—	—	15:7:1	65:5:1	—	—		
B65.35TR	5 ¹ / ₈	149	10	255	8 ²⁹ / ₃₂	226	26	11.8	5 ¹ / ₁₆	8	5 ¹ / ₁₆	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	16:3:1	—	3 ⁴ :1	15:7:1	55:5:1	—		
B65.3TICR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	25.4	11.5	—	—	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	16:3:1	—	3 ⁴ :1	15:7:1	55:5:1	—		
B650.3STR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	11.8	5 ¹ / ₁₆	8	5 ¹ / ₁₆	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	19:2:1	—	—	15:7:1	65:5:1	—	—			
B650.3TICR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	25.4	11.5	—	—	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19:2:1	—	3 ⁴ :1	15:7:1	65:5:1	—		
B690.3STR	8	203	10 ³ / ₁₆	274	9 ¹ / ₂	241	44.8	20.3	11	3 ²⁷ / ₃₂	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.9:1	40:1	—	25:1	24:8:1	100:1	—	
B690.3TICR	8	203	12 ¹ / ₈	314	9 ⁷ / ₁₆	240	—	—	3 ¹ / ₄	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19:2:1	—	34:1	15:7:1	65:5:1	—		
B690.3STR*	8	203	10 ³ / ₁₆	274	9 ⁷ / ₁₆	240	41.5	18.8	—	—	3 ²⁷ / ₃₂	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.9:1	40:1	—	25:1	24:8:1	100:1	—
B690.3TICR*	8	203	10 ³ / ₁₆	274	9 ⁷ / ₁₆	240	41.5	18.8	—	—	3 ²⁷ / ₃₂	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.9:1	40:1	—	25:1	24:8:1	100:1	—
B6880.3STR	10	254	13 ⁷ / ₁₆	344	8 ¹¹ / ₃₂	212	38.6	17.5	—	—	2 ¹ / ₄	70	10 ²³ / ₃₂	272	8 ²³ / ₃₂	251	9.9:1	40:1	—	5:1	19.7:1	79.5:1	—	—		
B6880.3TICR	10	254	13 ⁷ / ₁₆	344	8 ¹¹ / ₃₂	212	38.6	17.5	—	—	2 ¹ / ₄	70	10 ²³ / ₃₂	272	8 ²³ / ₃₂	251	9.9:1	40:1	—	5:1	19.7:1	79.5:1	—	—		
B1111.3STR*	11 ¹ / ₂	280	14 ³ / ₁₆	360	9 ⁵ / ₁₆	236	50.3	22.8	7 ₁₆	11	3 ¹¹ / ₁₆	94	10 ²³ / ₃₂	271	8 ²³ / ₃₂	8 ¹⁵ / ₁₆ SH	8 ¹⁰ / ₁₆ SH	1:1	9.7:1	44.7:1	—	18:1	17.6:1	81:1	—	
B1111.3TICR	11 ¹ / ₂	280	14 ³ / ₁₆	360	8 ⁵ / ₁₆	207	41.0	18.6	—	—	3 ¹¹ / ₁₆	94	10 ²³ / ₃₂	271	8 ²³ / ₃₂	8 ¹⁵ / ₁₆ SH	8 ¹⁰ / ₁₆ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—	
B1111.3PTAC*	11 ¹ / ₂	280	14 ³ / ₁₆	360	8 ⁹ / ₁₆	218	—	—	—	—	3 ¹¹ / ₁₆	94	10 ²³ / ₃₂	271	8 ²³ / ₃₂	8 ¹⁵ / ₁₆ SH	8 ¹⁰ / ₁₆ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—	
B1111.3STAC	11 ¹ / ₂	280	14 ³ / ₁₆	360	9 ⁹ / ₁₆	236	—	—	—	—	3 ¹¹ / ₁₆	94	10 ²³ / ₃₂	271	8 ²³ / ₃₂	8 ¹⁵ / ₁₆ SH	8 ¹⁰ / ₁₆ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—	
B1112.5	11 ³ / ₁₆	300	—	—	9 ¹³ / ₁₆	249	—	—	7 ₁₆	11	3 ¹ / ₄	105	11 ⁵ / ₁₆	303	9 ¹⁵ / ₁₆ SH	9 ⁹ / ₁₂ SH	1:1	4:1	13.5:1	54.7:1	16.9:1	6.8:1	22.8:1	92:6:1	—	
B1130.3STR	12 ¹ / ₄	324	16 ¹ / ₃₂	409	12 ¹ / ₄	308	86.0	39.0	5 ₈	16	1	25	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₂ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—
B1130.3TICR	12 ¹ / ₄	324	16 ¹ / ₃₂	409	11 ⁷ / ₃₂	293	86.0	39.0	—	—	—	—	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₂ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—
B1135.3STR*	12 ¹ / ₄	324	16 ¹ / ₃₂	409	12 ¹ / ₈	308	92.6	42.0	5 ₈	16	1	25	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₂ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—
B1135.3TICR	12 ¹ / ₄	324	16 ¹ / ₃₂	409	11 ⁷ / ₃₂	293	77.0	35.0	—	—	—	—	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₂ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55:2:1	—	16:1	16.9:1	86:6:1	—
B1140.3STR	14 ⁹ / ₁₆	360	22 ¹ / ₈	562	18 ³ / ₁₆	462	249.2	113.0	—	—	—	—	212	18 ¹ / ₈	460	8 ¹ / ₂ SH	8 ¹⁵ / ₁₆ SH	2.9:1	11.6:1	42.6:1	—	4:1	16.4:1	60:1:1	—	
B1145.3STR	14 ¹ / ₄	362	21 ³ / ₁₆	538	16 ¹ / ₂	419	192.9	87.5	5 ₈	16	11	25	8 ¹ / ₂ SH	208	17 ³ / ₄	450	14 ¹ / ₂ SH	14 ¹ / ₂ SH	2.9:1	11.9:1	53.6:1	—	4:1	16.6:1	75.6:1	—
B1145.3TICR	14 ¹ / ₄	362	21 ³ / ₁₆	538	16 ¹ / ₂	419	187.1	84.9	3 ⁴ / ₁₆	32	8 ¹ / ₂ SH	208	17 ³ / ₄	450	14 ¹ / ₂ SH	14 ¹ / ₂ SH	2.9:1	11.9:1	53.6:1	—	4:1	16.6:1	75.6:1	—		

*4-Speed option available. Contact Harken

NEW

B1000.2STA, B1000.3STA, B1145.3STA

Aluminum Combinations

These self-tailing winches raise and trim sails on the largest yachts. They are available in 2 or 3 speeds, and come in marine-grade aluminum, or with aluminum base, stainless drum, and aluminum top combinations to maximize durability and corrosion resistance. Load-carrying gears are 17-4PH stainless steel. Self-tailing jaws accept a wide range of line sizes.

Modern-style winches integrate the stripper support arm into the self-tailing jaw assembly for a clean, smooth look. Classic winches are traditionally styled with a one-piece stripper arm that attaches to the top of the winch, encompassing the self-tailing jaws.

Winches have power ratios of up to 100:1 and are often used with either hydraulic or electric drives. The 3-speed 1140ST features a backwind to ease the loads on the winch before the sheet is released.

Hanuman (Endeavour II) — On Deck photo



MODERN SELF-TAILING



B1150STASA



B1120STASA

B1000.2STA
B1000.3STA

CLASSIC SELF-TAILING

Part No.	Ø		Base (B) in mm	Height (H) in mm	Weight lb kg	Line entry height (LE) in mm	Fastener circle in mm	Fasteners		Gear ratio			Power ratio							
	Drum (D) in mm	in mm						in mm	mm	1	2	3	1	2	3					
Classic Self-Tailing																				
B1000.2STA	6 $\frac{1}{8}$	175	11 $\frac{5}{16}$	287	13 $\frac{3}{16}$	335	46.8	21.2	6 $\frac{7}{16}$	164	9 $\frac{9}{16}$	233	8 x $\frac{3}{8}$ SH/HH	8 x 10 SH/HH	9.40	28.10	—	32.10	93.00	—
B1000.3STA	6 $\frac{1}{8}$	175	11 $\frac{5}{16}$	287	13 $\frac{3}{16}$	335	50.1	22.7	6 $\frac{7}{16}$	164	9 $\frac{9}{16}$	233	8 x $\frac{3}{8}$ SH/HH	8 x 10 SH/HH	2.23	9.40	28.10	6.50	32.10	93.00
B1120STASA	11 $\frac{13}{16}$	300	16 $\frac{15}{32}$	418	14 $\frac{9}{16}$	370	127.8	58	6 $\frac{13}{32}$	163	14 $\frac{3}{8}$	365	12 x $\frac{3}{8}$ SH	12 x 10 SH	2.0	11.4	33.3	3.4	19.3	56.3
B1140STASA	14 $\frac{3}{16}$	360	22 $\frac{1}{8}$	562	18 $\frac{3}{16}$	462	299.9	136	8 $\frac{11}{32}$	212	18 $\frac{1}{8}$	460	8 x $\frac{1}{2}$ SH	8 x 12 SH	2.9	11.6	42.6	4.0	16.4	60.1
B1150STASA	16 $\frac{5}{32}$	410	25 $\frac{3}{16}$	640	19 $\frac{3}{4}$	502	485	220	8 $\frac{27}{32}$	225	22 $\frac{1}{16}$	560	12 x $\frac{1}{2}$ SH	12 x 12 SH	3.4	15.3	64.9	4.2	19	80.4
Modern Self-Tailing																				
B990.2ST*	8	203	11 $\frac{1}{32}$	280	11 $\frac{9}{16}$	294	43.2	19.6	5 $\frac{31}{32}$	151.7	9 $\frac{9}{16}$	233	8 x $\frac{3}{8}$ SH	8 x 10 SH	9.9	40.0	—	24.8	100	—
B990.3ST*	8	203	11 $\frac{1}{32}$	280	11 $\frac{9}{16}$	294	43.2	19.6	5 $\frac{31}{32}$	151.7	9 $\frac{9}{16}$	233	8 x $\frac{3}{8}$ SH	8 x 10 SH	1.0	9.9	40.0	2.5	24.8	100
B1110STASA	10 $\frac{31}{32}$	279	13 $\frac{11}{32}$	339	9 $\frac{1}{4}$	246.5	—	—	3 $\frac{1}{2}$	89	10 $\frac{23}{32}$	272	8 x $\frac{3}{8}$ SH	8 x 10 SH	1.0	9.43	43.6	1.8	17.2	79.4
B1130.3ST*	12 $\frac{3}{4}$	324	16 $\frac{15}{32}$	409	12 $\frac{1}{8}$	308	86.0	39.0	4 $\frac{17}{32}$	115	12 $\frac{3}{4}$	324	9 x $\frac{1}{2}$ SH	9 x 12 SH	1.0	10.8	55.2	1.6	16.9	86.6
B1135.3STASA	12 $\frac{3}{4}$	324	16 $\frac{15}{32}$	410	12 $\frac{1}{8}$	308	220.5	100	4 $\frac{11}{32}$	110	12 $\frac{3}{4}$	324	9 x $\frac{1}{2}$ SH	9 x 12 SH	1.1	10.8	55.2	1.6	16.9	86.5
B1145.3ST*	14 $\frac{1}{4}$	362	21 $\frac{3}{16}$	538	16 $\frac{1}{2}$	419	192.9	87.5	8 $\frac{3}{16}$	208	17 $\frac{3}{4}$	450	14 x $\frac{1}{2}$ SH	14 x 12 SH	2.9	11.9	53.6	4.1	16.6	75.6

*Available in black-anodized or grey-anodized aluminum. For black add A to part number. For grey-anodized add GGG

NEW

RADIAL WINCH LINE

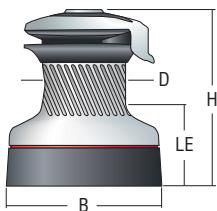
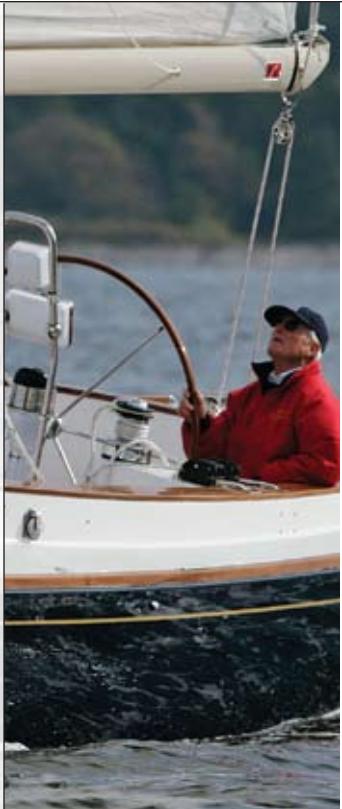
Chrome Radial

Chrome Radial Winches are designed for sailors that want the elegance of mirror-polished chrome to enhance their yacht's lines. They feature chrome drums, black composite bases and tops, and come in 1-, 2-, or 3-speed self-tailing styles.

The drum's gripping surface is shaped for each winch size and drum material and features diagonal ribs (rather than textured abrasive materials) to maximize gripping power and greatly reduce line wear. When easing, the angle of the ribs stops line from rising, preventing overrides and providing a smooth controlled release as the line exits the winch. High-strength composite self-tailing jaws and skirt save weight. Composite roller bearings reduce friction under load and don't require lubrication. Load-carrying gears and pins are 17-4PH stainless steel for strength and durability.

Small Boat winches are available in single speed. Self-tailing models sizes 60 and up come in two or three speeds.

Alerion 38 — Billy Black photo



WINCH Q&A

WHY DOES MY CHROME RADIAL WINCH HAVE A DIFFERENT GRIP PATTERN THAN AN ALUMINUM RADIAL?

Chrome has a more slippery finish than aluminum, so the ribs on chrome Radial winches are spaced closer together to increase friction. This optimizes your grip for trimming as well as for easing the sail in a smooth, controlled manner.

Part No.	Ø				Line entry height (LE)	Line Ø (Min - Max)	Fastener circle	Fasteners (SH or HH)	Gear ratio			Power ratio										
	Part No.	Drum (D)	Base (B)	Height (H)					in	mm	in	mm	1	2	3	1	2	3				
20STC	27/8	73	5 3/8	137	5 13/16	148	7.5	3.4	2 3/8	61	1/4 - 1/2	6 - 12	4 3/8	110	5 x 1/4	5 x 6	2.76	—	—	19.20	—	—
35.2STC	3 1/8	80	5 7/8	149	6 11/16	170	10.6	4.8	3 1/8	79	5/16 - 1/2	8 - 12	4 1/8	123	5 x 1/4	5 x 6	2.13	5.65	—	13.50	35.90	—
40.2STC	3 1/8	80	6 3/16	157	6 7/8	175	11.9	5.4	3 1/4	82	5/16 - 1/2	8 - 12	4 1/8	123	5 x 1/4	5 x 6	2.13	6.28	—	13.50	39.90	—
46.2STC	3 7/8	100	7 1/4	184	7 15/16	201	17.2	7.8	3 9/16	90	5/16 - 9/16	8 - 14	5 1/8	150	5 x 5/16	5 x 8	2.30	9.17	—	11.70	46.50	—
50.2STC	4 9/16	110	7 5/8	194	8 1/8	206	20.3	9.2	3 7/8	97	5/16 - 9/16	8 - 14	5 1/8	150	5 x 5/16	5 x 8	2.40	10.90	—	10.90	50.40	—
60.2STC	4 9/16	120	9 1/8	232	9 11/16	246	30.7	13.9	4 9/16	116	5/16 - 5/8	8 - 16	8	204	6 x 5/16	6 x 8	4.80	14.40	—	20.30	61.00	—
60.3STC	4 9/16	120	9 1/8	232	9 11/16	246	34.0	15.4	4 9/16	116	5/16 - 5/8	8 - 16	8	204	6 x 5/16	6 x 8	2.20	4.80	14.40	9.20	20.30	61.00
70.2STC	5 1/8	130	9 7/16	240	10 1/16	256	33.3	15.1	4 1/2	115	9/8 - 11/16	10 - 18	8 1/8	205	6 x 5/16	6 x 8	5.70	22.30	—	22.20	72.00	—
70.3STC	5 1/8	130	9 7/16	240	10 1/16	256	36.6	16.6	4 1/2	115	9/8 - 11/16	10 - 18	8 1/8	205	6 x 5/16	6 x 8	2.30	5.70	22.30	9.00	22.20	72.00
80.2STC	6 7/8	175	11 5/16	287	12 9/16	320	63.4	28.7	6 7/16	164	3 9/8 - 13/16	10 - 20	9 9/16	233	8 x 3/8	8 x 10	9.40	28.10	—	32.10	93.00	—
80.3STC	6 7/8	175	11 5/16	287	12 9/16	320	66.7	30.2	6 7/16	164	3 9/8 - 13/16	10 - 20	9 9/16	233	8 x 3/8	8 x 10	2.23	9.40	28.10	6.50	32.10	93.00

SETTING A NEW COURSE



Speedboat, 100' Juan Yacht Design, Cooksons Boats Ltd. — Gretchen Thor photo



HYDRAULICS MANAGER
ROBBIE YOUNG TALKS
ABOUT OUR ALL-NEW
HYDRAULICS PRODUCT LINE

Editors Note: Hydraulic-powered systems are becoming more and more popular on smaller cruising boats, all the way up to the Megayachts. With hydraulic power, you can run winches, furlers, anchor windlasses, bow thrusters, cylinders—basically any function on the boat, even the drive system. It was this increased demand that led us to develop a line of production hydraulic products.

Why Stick with the Status Quo

When developing products you can improve a design you already have, buy a company with existing tooling, or start fresh. We chose to start fresh. And because we could go in any direction we wanted, our only parameters were that loads, pressures, and lengths had to fit within sailboat industry standards. We thought, why stick with the status quo, let's go with something new and innovative to make our product stand above the rest on the market. In the standard Harken way, we took on the hardest jobs first because when we figured out how to do those, it would be easy to do the rest of the product line. We designed custom titanium cylinders for the +39 Challenge (2007 America's Cup) and a powered system for a 52 m Sparkman & Stephens in Turkey. This led directly into a range of cylinders: stainless steel, 6000 series aluminum, and 7000 series aluminum. These materials have different properties for different applications.

"We thought, why stick with the status quo, let's go with something new and innovative to make our product stand above the rest on the market."

— Robbie Young
Hydraulics Manager

Stainless Steel & All-Chrome

Stainless steel and all-chrome winches combine the elegance of highly-polished finishes with the dependable, low-friction pulling power of Harken gearing systems.

Stainless steel self-tailing winches come in 2- or 3-speed self-tailing and feature polished marine-grade stainless bases, drums and tops to maximize durability and corrosion resistance.

All-chrome winches come in 1-, 2-, and 3-speeds, in self-tailing or plain-top styles, with polished marine-grade chrome bases, drums, and tops. Single-speed, plain-top chrome winches use a Delrin® sleeve bearing.

Both stainless steel and all-chrome winches feature 17-4PH stainless steel gears for strength. 2- and 3-speed self-tailing winches feature stainless steel roller bearings for strength and durability.

Power ratios range from 40:1 in the 2-speed winches to 80:1 in the wide-body three-speed models, which are often used with electric or hydraulic drives to handle sheets and halyards on the largest yachts. The wide drums provide extra surface area to hold high loads and for fast retrieval speed when sheeting. Wide-body modern-style winches integrate the stripper support arm into the self-tailing jaw assembly for a clean, smooth look. Classic winches are traditionally-styled with a one-piece stripper arm that attaches to the top of the winch, encompassing the self-tailing jaws.

Tartan 4300 — Tartan Yachts photo



PLAIN-TOP CHROME

CLASSIC SELF-TAILING CHROME OR STAINLESS STEEL

Self-tailing jaws accept a wide range of line sizes



B1110ST

B1130ST
B1135ST

B1140ST

MODERN SELF-TAILING STAINLESS STEEL

CLASSIC SELF-TAILING STAINLESS STEEL

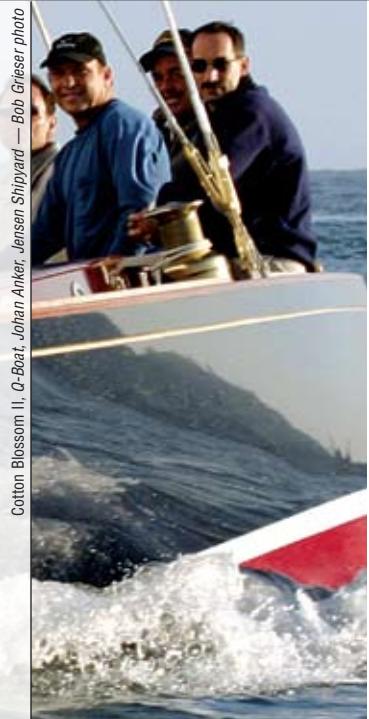
Bronze

Bronze winches enhance your yacht's classic look, while providing the low-friction pulling power of Harken's gearing systems. They come in 1, 2, and 3 speeds, with wide or standard drums, and in both plain-top and self-tailing configurations.

Marine-grade, polished-bronze materials maximize durability and corrosion resistance. Strong load-carrying gears are 17-4PH stainless steel for strength. Stainless self-tailing jaws accept a wide range of line sizes.

Single-speed, plain-top winches use Delrin® bearing sleeves. 2- and 3-speed winches feature 17-4PH stainless steel roller bearings for strength and durability.

Power ratios range from 40:1 in the 2-speed winches to 80:1 in the wide-body three-speed models which are often used with electric or hydraulic drives to handle sheet and halyards on the largest yachts. The wide drums provide extra surface area to hold high loads and for fast retrieval speed when sheeting.



Cotton Blossom II, Q-Boat, Johan Anker, Jensen Shipyard — Bob Grieser photo



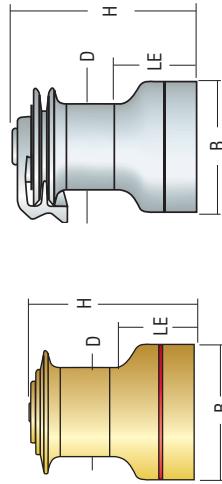
PLAIN-TOP



SELF-TAILING

Stainless Steel, All-Chrome, & Bronze

Ordering Information:
Specify material by adding
letter code to part number.
See chart for availability.



Part No.	Materials						Height (H) in mm	Base (B) in mm	Drum (D) in mm	Weight lb kg	CCS/BBA CCS/CSS/BBB	SSS kg	Line Ø (Min - Max) in mm	Line entry height (LE) in mm	Fastener circle in mm	Fasteners in mm	Gear ratio	Power ratio							
	CCA	CCC	CCS	SST	BBA	BBB																			
Classic Plain-Top																									
B6	✓	—	—	✓	—	2 ¹ / ₈	60	3 ⁹ / ₁₆	90	2.9	1.3	—	—	—	1 ⁵ / ₁₆	33	2 ¹ / ₁₆	65	6 x 1/4 FH						
B8	✓	—	—	✓	—	2 ¹¹ / ₁₆	68	4 ¹ / ₂	115	3 ⁹ / ₁₆	90	4.6	2.1	—	—	1 ¹ / ₂	38	3 ¹ / ₁₆	90	4 x 5/16 FH					
B16.2	—	✓	—	✓	—	2 ⁹ / ₁₆	70	4 ³ / ₄	120	4 ⁷ / ₁₆	112	—	—	—	—	2	50	3 ¹ / ₁₆	90	5 x 1/4 FH					
B32.2	—	✓	—	✓	—	2 ¹⁵ / ₁₆	74	5 ¹ / ₂	137	5 ¹ / ₂	134	—	—	—	—	2 ⁹ / ₁₆	70	4 ¹ / ₈	105	5 x 1/4 FH					
B40.2	✓	—	—	✓	—	3	76	5 ¹ / ₁₆	145	5 ¹ / ₁₆	148	—	13.2	6	—	—	2 ⁹ / ₁₆	70	4 ¹ / ₁₆	112	5 x 1/4 FH				
B980.2	—	—	—	✓	—	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ³ / ₄	298	—	94.8	43.0	—	—	5 ¹³ / ₁₆	148	8 ⁷ / ₈	225	6 x 3/8 FH				
B980.3	—	—	—	✓	—	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ³ / ₄	298	—	94.8	43.0	—	—	5 ¹³ / ₁₆	148	8 ⁷ / ₈	225	6 x 3/8 FH				
B1111.3PT	—	—	—	✓	—	11 ¹ / ₂	280	14 ⁵ / ₁₆	360	9 ¹ / ₂	236	—	—	—	—	—	3 ³ / ₈	80	10 ⁵ / ₁₆	278	8 x 3/8 SH				
Classic Self-Tailing																									
B16ST	—	✓	—	✓	—	2 ¹ / ₄	70	4 ¹ / ₄	120	5 ¹ / ₁₆	142	—	9	4.1	—	—	1 ¹ / ₂	2	50	3 ¹ / ₁₆	90	5 x 1/4 FH			
B32.2ST	—	✓	—	✓	—	2 ¹⁵ / ₁₆	74	5 ¹ / ₁₆	139	6 ¹ / ₁₆	164	—	12.1	5.5	—	—	5 ¹ / ₁₆	12	2 ¹ / ₄	70	4 ¹ / ₈	105	5 x 1/4 FH		
B40.2ST	—	✓	—	✓	—	3	76	6	152	6 ¹⁵ / ₁₆	176	—	15	6.8	14.8	6.7	5 ¹ / ₁₆	1/2	8	12	2 ¹ / ₄	70	4 ¹ / ₁₆	112	5 x 1/4 FH
B44.2ST	—	✓	—	✓	—	3 ⁵ / ₈	92	6 ¹ / ₄	172	7 ³ / ₄	196	—	20.9	9.5	20.5	9.3	5 ¹ / ₁₆ - 9 ¹ / ₁₆	8	14	3 ¹ / ₈	85	5 ¹ / ₈	128	5 x 5/16 FH	
B46.2ST	—	✓	—	✓	—	4	102	6 ¹⁵ / ₁₆	176	8 ⁷ / ₁₆	210	—	25.5	11.55	—	—	5 ¹ / ₁₆ - 9 ¹ / ₁₆	8	14	3 ¹ / ₁₆	90	5 ¹ / ₂	140	5 x 5/16 FH	
B48.2ST	—	✓	—	✓	—	4	102	7 ¹ / ₁₆	189	8 ¹ / ₈	222	—	30	13.6	29.8	13.5	5 ¹ / ₁₆ - 9 ¹ / ₁₆	8	14	3 ¹ / ₁₆	100	6 ¹ / ₈	155	6 x 5/16 FH	
B53.2ST	—	✓	—	✓	—	4 ¹ / ₈	112	8 ¹ / ₈	221	9 ¹ / ₁₆	245	—	39	17.7	—	—	5 ¹ / ₁₆ - 9 ¹ / ₁₆	8	14	4 ¹ / ₁₆	105	7 ¹ / ₁₆	180	6 x 3/16 FH	
B60.2ST	—	✓	—	✓	—	4 ³ / ₈	120	8 ¹ / ₈	225	10 ⁵ / ₁₆	270	—	—	—	—	53.6	24.3	4 ¹ / ₁₆	125	7 ¹ / ₁₆	195	6 x 5/16 FH			
B70.2ST	—	✓	—	✓	—	5 ¹ / ₈	130	9 ¹ / ₈	245	12 ¹ / ₈	308	—	—	—	—	3 ¹ / ₈ - 7 ¹ / ₁₆	10	18	5 ¹ / ₈	150	8 ¹ / ₄	210	5 x 3/16 FH		
B70.3ST	—	✓	—	✓	—	5 ¹ / ₈	130	9 ⁵ / ₁₆	245	12 ¹ / ₈	308	—	—	—	—	3 ¹ / ₈ - 7 ¹ / ₁₆	10	18	5 ¹ / ₈	150	8 ¹ / ₄	210	5 x 3/16 FH		
B74.2ST	—	✓	—	✓	—	5 ⁷ / ₈	150	10 ¹ / ₁₆	265	11 ¹³ / ₁₆	300	—	—	—	—	3 ¹ / ₈ - 7 ¹ / ₁₆	10	20	5 ⁷ / ₈	150	8 ¹ / ₄	225	6 x 3/8 FH		
B74.3ST	—	✓	—	✓	—	5 ⁷ / ₈	150	10 ¹ / ₁₆	265	11 ¹³ / ₁₆	300	—	—	—	—	3 ¹ / ₈ - 7 ¹ / ₁₆	10	20	5 ⁷ / ₈	150	8 ¹ / ₄	225	6 x 3/8 FH		
B980.2ST	—	✓	—	✓	—	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ⁹ / ₁₆	300	—	—	92.6	42.0	88.4	40	3 ¹ / ₈ - 7 ¹ / ₁₆	10	20	5 ⁹ / ₁₆	148	8 ⁷ / ₈	225	6 x 3/8 FH
B980.3ST	—	✓	—	✓	—	6 ⁷ / ₈	175	10 ⁷ / ₁₆	265	11 ⁹ / ₁₆	300	—	—	92.6	42.0	—	—	3 ¹ / ₈ - 7 ¹ / ₁₆	10	20	5 ⁹ / ₁₆	148	8 ⁷ / ₈	225	6 x 3/8 FH
B1120ST	—	✓	—	✓	—	11 ¹³ / ₁₆	300	16 ⁵ / ₃₂	418	14 ⁹ / ₁₆	370	—	—	—	—	9 ¹ / ₁₆ - 1	14	- 25	6 ³ / ₃₂	163	365	12 x 3/8 SH			
B1140ST	—	✓	—	✓	—	14 ³ / ₁₆	360	22 ¹ / ₈	562	18 ³ / ₁₆	462	—	—	—	—	3 ¹ / _{4 - 1¹/₄}	19	- 32	8 ¹¹ / ₃₂	212	480	8 x 1/2 SH			
B1150ST	—	✓	—	✓	—	16 ⁷ / ₃₂	410	25 ⁵ / ₁₆	640	19 ³ / ₄	502	—	—	—	—	9 ¹ / ₁₆ - 1	14	- 25	8 ²⁷ / ₃₂	225	222 ¹ / ₁₆	560	12 x 1/2 SH		
Modern Self-Tailing																									
B1110ST	—	✓	—	✓	—	—	—	—	—	—	—	—	—	—	—	74.2	33.6	5 ¹ / ₈ - 7 ¹ / ₈	16	- 22	31 ¹ / ₂	89	10 ³ / ₃₂	272	8 x 3/8 SH
B1130.3ST*	—	✓	—	✓	—	—	—	—	—	—	—	—	—	—	—	9 ¹ / ₈ - 1	16	- 25	4 ¹¹ / ₃₂	115	12 ¹ / ₄	324	9 x 1/2 SH		
B1135.3ST*	—	✓	—	✓	—	—	—	—	—	—	—	—	—	—	—	9 ¹ / ₈ - 1	16	- 25	4 ¹¹ / ₃₂	115	12 ¹ / ₄	324	9 x 1/2 SH		

*4-Speed option available. Contact Harken

SETTING A NEW COURSE

Nazanin V — Mark Lloyd photo



Our HydroTrim line of cylinders is used to trim mainsheets, jib sheets, or whatever function you want. As the cylinder extends, it pulls in a multiplying amount of sheet in 1:4 or 1:6 reverse purchases. These cylinders are used on cruising boats and are available in 11 sizes.

Valves

The big question was, how do we make a good mousetrap even better? We discussed what we did and didn't like, and came up with some innovative ideas. We eliminated the large coil springs—the majority of the weight. We feel hydraulic systems should have a safety feature because in extreme conditions, you can't tell how much pressure is in the system. We built pressure release into every valve with flow controls to adjust the speed of release. We combined pressure relief and release into one part—a patented feature. We also have dump valves for systems to quickly release pressure.



Handles

Valve handles are molded nylon-filled, long-glass fiber like our Carbo blocks. They're contoured so sheets and lines won't wrap around the edges and your hands won't slip. Handles mount in any direction so they can be uniform throughout the boat.



"We built pressure release into every valve with flow controls to adjust the speed of release. We combined pressure relief and release into one part—a patented feature."

— Robbie Young
Hydraulics Manager

NEW**B500.2STR, B650.3STR, B650.3TCR**

Carbon Fiber

Carbon winches are standard in many racing classes and are also the choice of performance-oriented fast cruisers.

Winches feature carbon skirts and tops, aluminum drums, and strong composite jaws with one-piece sculpted line guide and peeler. PEEK® roller bearings are low-maintenance, reliable, and efficient. They ride in large-diameter cages, allowing more bearings to carry the load. Stainless steel drive gears are strong and durable. The AC versions of the 65.3ST and 65.2ST winches feature titanium gears for extremely high strength-to-weight ratios and exceptional resistance to corrosion.

Carbon winches come with up to three speeds and can be driven by handle, pedestal, or by electric or hydraulic motors. Harken's 50.3STR is the smallest three-speed direct drive self-tailing winch in the industry.

Options include self-tailing arms, top cleats, free-spinning or ratcheting base sheave additions, and left-handed rotation.

If class rules dictate, winches are also available in all-aluminum with stainless steel gears.



B50.3STR



B50.2STR



B500.3TCR



B500.2STR



B55.3TCR



B55.2STR



B650.3TCR



B650.3STR



B65.3TCR



B65.3STAC



B65.2STAC



NEW

B1145.3STR, B1145.3TCR

Carbon Fiber

These powerful carbon winches are aboard large megayachts, performance cruisers, and racing monohulls and multihulls over 60 feet (18 m).

Winches feature carbon skirts and tops, aluminum drums, and strong composite jaws with one-piece sculpted line guide and peeler. PEEK® roller bearings are low-maintenance, reliable and efficient. They ride in large-diameter cages, allowing more bearings to carry the load. Stainless steel drive gears are strong and durable. The AC versions of the 1111PT and 990.3ST winches feature titanium gears for extremely high strength-to-weight ratios and exceptional resistance to corrosion.

Drives are pedestal, electric or hydraulic. Wide-diameter drums provide extra surface area to hold line securely under high loads. Fewer wraps speed line retrieval when sheeting.

Other options include self-tailing, top cleats, four speeds, free-spinning or ratcheting base sheave additions, and left-handed rotation.

If class rules dictate, winches are also available in all-aluminum with stainless steel gears.



B990.3TCR



B990.3STAC



B880.3VTOP



B880.3STR



B1111.3PTAC



B1111.3STR



B1125STR



B1130.3TCR



B1130.3STR



B1135.3STR

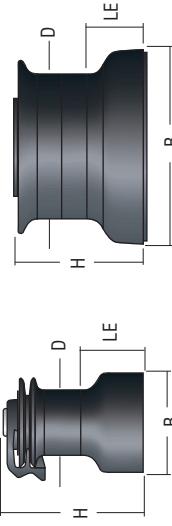


B1145.3TCR



B1145.3STR

Carbon Fiber



Base riser required to mount
B50, B55, and B65 winches
above deck. Specify above
deck or flush deck version
when ordering.

Use base sheaves for cross-
sheeting and lazy sheets.
Availability varies by winch size.

Part No.	Drum (D) in	Base (B) in	Height (H) mm	Weight lb	Weight kg	Line Ø mm	Min in	Max in	Line entry height (LE) mm	Fastener circle mm	Fasteners in	Fasteners mm	Gear ratio			Power ratio												
													1	2	3	4												
B480TCR	4 ³ / ₄	120	7 ³ / ₃₂	188	8 ³ / ₁₆	208	17.4	7.9	—	—	3 ⁵ / ₁₆	92	6 ¹ / ₈	155	6 ⁵ / ₁₆ HH	6 ⁸ / ₁₆ HH	1:1	2.5:1	10:1	—	4:2:1	10:8:1	43:1	—				
B50.2STR	4 ⁹ / ₁₆	116	7 ¹ / ₄	184	6 ⁵ / ₈	168	11.7	5.3	5 ⁵ / ₁₆	8	2 ⁹ / ₁₆	14	9 ¹ / ₁₆	65	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	2.7:1	11:4:1	—	—	11:7:1	50:7:1	—			
B50.3STR	4 ⁹ / ₁₆	116	7 ¹ / ₄	184	6 ⁷ / ₈	175	13.7	6.2	5 ¹ / ₁₆	8	2 ⁹ / ₁₆	14	9 ¹ / ₁₆	65	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	2.7:1	11:4:1	—	4:4:1	11:7:1	49:8:1	—		
B50.2STR	4 ⁹ / ₁₆	116	7 ¹ / ₄	184	6 ⁵ / ₈	168	11.0	5.0	5 ¹ / ₁₆	8	2 ⁹ / ₁₆	14	9 ¹ / ₁₆	65	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	2.7:1	11:4:1	—	—	11:7:1	50:7:1	—			
B50.3TR	5 ¹ / ₈	130	7 ¹ / ₄	184	6 ¹ / ₈	175	13.7	6.2	5 ¹ / ₁₆	8	2 ⁹ / ₁₆	14	9 ¹ / ₁₆	55	6 ¹⁵ / ₃₂	164	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	2.7:1	11:4:1	—	3:9:1	10:4:1	44:5:1	—		
B530TCR	5 ¹ / ₈	130	8 ¹ / ₁₆	218	9 ¹ / ₁₆	243	23.8	10.8	—	—	4 ³ / ₈	111	7 ¹ / ₃₂	180	6 ¹ / ₈	180	6 ³ / ₁₆ HH	6 ⁸ / ₁₆ HH	1:1	3.1:1	12:1	—	3:9:1	12:1	47:1	—		
B55.2STR	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₃₂	199	20.9	9.5	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	16.3:1	—	—	15.7:1	55:6:1	—	—		
B55.2STAC	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₃₂	199	—	—	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹¹ / ₃₂	85	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	16.3:1	—	—	15.7:1	55:6:1	—	—		
B55.3STR	5 ¹ / ₈	149	10	255	8 ²⁹ / ₃₂	226	11.8	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	16.3:1	—	3:4:1	15:7:1	55:6:1	—			
B55.3TICR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	25.4	11.5	—	—	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	16.3:1	—	3:4:1	15:7:1	55:6:1	—				
B65.2STR	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₃₂	199	20.9	9.5	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	19.2:1	—	—	15.7:1	65:5:1	—	—		
B65.2STAC	5 ¹ / ₈	149	10	255	7 ¹⁹ / ₃₂	199	—	—	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹¹ / ₃₂	85	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	4.6:1	19.2:1	—	—	15.7:1	65:5:1	—	—		
B65.3STR	5 ¹ / ₈	149	10	255	8 ²⁹ / ₃₂	226	26	11.8	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	3:4:1	15:7:1	65:5:1	—		
B65.3TICR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	25.4	11.5	—	—	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	3:4:1	15:7:1	65:5:1	—				
B65.3STR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	11.8	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	3:4:1	15:7:1	65:5:1	—			
B65.3TICR	5 ⁷ / ₈	149	10	255	8 ²⁹ / ₃₂	226	25.4	11.5	—	—	3 ¹ / ₄	83	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	3:4:1	15:7:1	65:5:1	—				
B680.3STR	8	203	10 ³ / ₁₆	274	9 ¹ / ₂	241	44.8	20.3	5 ¹ / ₁₆	8	5 ¹ / ₈	16	3 ¹ / ₄	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	2:5:1	24:8:1	100:1	—
B890.3STR	8	203	12 ¹ / ₈	314	9 ⁷ / ₁₆	240	—	—	5 ¹ / ₁₆	11	3 ²⁷ / ₃₂	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	3:4:1	15:7:1	65:5:1	—		
B890.3TICR	8	203	10 ³ / ₁₆	274	9 ⁷ / ₁₆	240	41.5	18.8	—	—	3 ²⁷ / ₃₂	98	12	305	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	4.6:1	19.2:1	—	3:4:1	15:7:1	65:5:1	—		
B880.3STR	10	254	13 ⁷ / ₃₂	344	8 ¹¹ / ₃₂	212	38.6	17.5	—	—	2 ¹ / ₄	70	10 ²³ / ₃₂	272	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	2.5:1	9.9:1	40:1	—	5:1	19.7:1	79.5:1	—		
B1111.3STR*	11 ¹ / ₃₂	280	14 ³ / ₁₆	360	8 ⁵ / ₃₂	207	41.0	18.6	—	—	3 ¹¹ / ₁₆	94	10 ¹⁷ / ₃₂	271	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.7:1	44.7:1	—	1:8:1	17.6:1	81:1	—		
B1111.3TICR	11 ¹ / ₃₂	280	14 ³ / ₁₆	360	8 ⁵ / ₃₂	207	41.0	18.6	—	—	3 ¹¹ / ₁₆	94	10 ¹⁷ / ₃₂	271	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.7:1	44.7:1	—	1:8:1	17.6:1	81:1	—		
B1111.3TAC*	11 ¹ / ₃₂	280	14 ³ / ₁₆	360	8 ⁵ / ₃₂	218	—	—	—	—	3 ¹¹ / ₁₆	94	10 ¹⁷ / ₃₂	271	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.7:1	44.7:1	—	1:8:1	17.6:1	81:1	—		
B1111.3STAC	11 ¹ / ₃₂	280	14 ³ / ₁₆	360	8 ⁹ / ₃₂	236	—	—	—	—	3 ¹¹ / ₁₆	94	10 ¹⁷ / ₃₂	271	8 ²³ / ₃₂	226	6 ³ / ₁₆ FH	6 ⁸ / ₁₆ FH	1:1	9.7:1	44.7:1	—	1:8:1	17.6:1	81:1	—		
B1112.5	11 ¹³ / ₁₆	300	—	—	9 ¹³ / ₁₆	249	—	—	7 ¹ / ₁₆	11	3 ¹ / ₈	19	4 ¹ / ₈	105	11 ⁵ / ₁₆	303	9 ¹⁵ / ₁₆ SH	9 ⁹ / ₁₂ SH	1:1	4:1	13.5:1	54.7:1	169:1	6.8:1	22.8:1	92:6:1		
B1130.3STR	12 ¹ / ₄	324	16 ¹ / ₃₂	409	12 ¹ / ₄	308	86.0	39.0	—	—	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₈ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55.2:1	—	1:6:1	16.9:1	86.6:1	—				
B1130.3TICR	12 ¹ / ₄	324	16 ¹ / ₃₂	409	11 ⁷ / ₃₂	293	86.0	39.0	—	—	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₈ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55.2:1	—	1:6:1	16.9:1	86.6:1	—				
B1135.3STR*	12 ¹ / ₃₂	324	16 ³ / ₃₂	409	12 ¹ / ₈	308	92.6	42.0	—	—	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₈ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55.2:1	—	1:6:1	16.9:1	86.6:1	—				
B1135.3TICR	12 ¹ / ₃₂	324	16 ³ / ₃₂	409	11 ⁷ / ₃₂	293	77.0	35.0	—	—	4 ⁷ / ₃₂	115	12 ³ / ₄	324	9 ¹ / ₈ SH	9 ⁹ / ₁₂ SH	1:1	10.8:1	55.2:1	—	1:6:1	16.9:1	86.6:1	—				
B1140.3STR	14 ⁹ / ₁₆	360	22 ¹ / ₈	562	18 ³ / ₁₆	462	249.2	113.0	—	—	4 ⁷ / ₃₂	212	18 ¹ / ₈	460	8 ¹ / ₈ SH	8 ⁹ / ₁₂ SH	2.9:1	11.6:1	42.6:1	—	4:1	16.4:1	60.1:1	—				
B1145.3STR	14 ¹ / ₄	362	21 ³ / ₁₆	538	16 ¹ / ₂	419	192.9	87.5	—	—	8 ³ / ₁₆	22	8 ¹ / ₈	208	17 ³ / ₄	450	14 ¹ / ₂ SH	14 ¹ / ₂ SH	2.9:1	11.9:1	53.6:1	—	4:1	16.6:1	75.6:1	—		
B1145.3TICR	14 ¹ / ₄	362	21 ³ / ₁₆	538	16 ¹ / ₂	419	187.1	84.9	—	—	8 ³ / ₁₆	32	8 ¹ / ₈	208	17 ³ / ₄	450	14 ¹ / ₂ SH	14 ¹ / ₂ SH	2.9:1	11.9:1	53.6:1	—	4:1	16.6:1	75.6:1	—		

*4-Speed option available. Contact Harken

Racing Pedestals

Harken® racing pedestals allow crew members to trim from powerful standing positions. Customized to meet each yacht's requirements, these pedestal systems can be linked together, allowing crew to work in tandem to produce more power for faster, more efficient maneuvers.

Belt-Drive Pedestals

Harken® belt-drive pedestals are molded from carbon fiber and epoxy. Prepreg lamination and autoclave curing maximize stiffness and strength. Components are made of Hardkote-anodized aluminum and 17-4PH stainless steel. Roller bearings, thermoplastic belt sprockets, and carbon-fiber reinforced drive belts result in the lowest possible weight.

Below-deck belt-drive pedestals are also offered in abovedeck/mid-drive styles. These pedestals can be removed and winches converted to manual operation to make more room in the cockpit during a long-distance race or cruise.

MX Pedestals

Harken's MX carbon pedestals drive winches on small Grand-Prix racers like GP42s, GP52s and Open 60s. The patented overdrive system features two chains inside the pedestal, eliminating the weight of an external overdrive box. Two drive sprockets allow trimmers to select the gear ratio, switching between the 1:1 direct-drive and the fast 1:3 drive chain without reversing grinding directions.



Pedestal Handles

Pedestal handles are offered in aluminum or carbon fiber and in single-, double-, or SpeedGrip styles.

A SpeedGrip pedestal handle is a great solution for solo sailors because it frees up a hand for another task. SpeedGrip winch handles can be special-ordered from Harken.



Twisted Belt-Drive Pedestal:

Harken's twisted belt-drive pedestal eliminates the weight of the 90° gear box when grinder faces fore and aft.

Straight Belt-Drive Pedestal:

A disconnect lever for an abovedeck/mid-drive belt pedestal system is available.

Angled Belt-Drive Pedestal:

An angled pedestal is customized to optimize the deck layout or tailored to the grinder for maximum comfort.

MX Pedestal: The red shaft of the left button indicates the 1:3 overdrive is engaged. Every turn of the handle produces three turns of the winch.

MX Drive Sprockets



1:3 chain engaged 1:1 chain engaged



NEW

Men's and Women's Softshell Jacket

The thermal-regulating properties of Harken Softshell make this jacket an all-around favorite. This water-resistant midweight layer is windproof, breathable, and extremely tough. Wear it relaxing on a cool summer evening or during a fierce, wet-and-windy battle on the course.

Men's Size Range: S, M, L, XL, XXL

Women's Size Range: XS, S, M, L, XL

Available Colors (Men's and Women's):
Carbon/Ice



2070



2071

HARKEN®
SPORT



Stowable squall hood. Taped seams and water-shedding DWR treatment. 2-way stretch fabric for mobility. Flattering women's cut.

HydroTrim



Part No.	Bore Ø		Rod Ø		Stroke		Max Housing OD in mm	Reverse purchase	Max sheet load* at pressure		Oil volume cap end gal L	
	in	mm	in	mm	in	mm			2000 psi/138 bar lb kg	3000 psi/207 bar lb kg		
HYCT453235.4	1 3/4	45	1 1/4	32	14	350	2.27	57.7	4	1203	546	1804 818 0.14 0.5
HYCT453235.6	1 3/4	45	1 1/4	32	14	350	2.27	57.7	6	802	364	1203 546 0.14 0.5
HYCT453270.4	1 3/4	45	1 1/4	32	28	700	2.27	57.7	4	1203	546	1804 818 0.29 1.1
HYCT453270.6	1 3/4	45	1 1/4	32	28	700	2.27	57.7	6	802	364	1203 546 0.29 1.1
HYCT553840.4	2 3/16	55	1 1/2	38	16	400	2.86	72.6	4	1879	852	2819 1279 0.26 1.0
HYCT553840.6	2 3/16	55	1 1/2	38	16	400	2.86	72.6	6	1253	568	1879 852 0.26 1.0
HYCT553880.4	2 3/16	55	1 1/2	38	31	800	2.86	72.6	4	1879	852	2819 1279 0.51 1.9
HYCT553880.6	2 3/16	55	1 1/2	38	31	800	2.86	72.6	6	1253	568	1879 852 0.51 1.9
HYCT654850.4	2 1/2	65	1 7/8	48	20	500	3.17	80.5	4	2454	1113	3682 1670 0.42 1.6
HYCT654850.6	2 1/2	65	1 7/8	48	20	500	3.17	80.5	6	1636	742	2454 1113 0.42 1.6
HYCT6548100.4	2 1/2	65	1 7/8	48	39	1000	3.17	80.5	4	2454	1113	3682 1670 0.84 3.2
HYCT6548100.6	2 1/2	65	1 7/8	48	39	1000	3.17	80.5	6	1636	742	2454 1113 0.84 3.2
HYCT755460.4	3	75	2 1/8	54	24	600	3.8	96.5	4	3534	1603	5301 2405 0.72 2.7
HYCT755460.6	3	75	2 1/8	54	24	600	3.8	96.5	6	2356	1069	3534 1603 0.72 2.7
HYCT7554120.4	3	75	2 1/8	54	47	1200	3.8	96.5	4	3534	1603	5301 2405 1.4 5.5
HYCT7554120.6	3	75	2 1/8	54	47	1200	3.8	96.5	6	2356	1069	3534 1603 1.4 5.5
HYCT906065.4	3 1/2	90	2 1/2	60	26	650	4.57	116.1	4	4811	2182	7216 3273 1.1 4.0
HYCT906065.6	3 1/2	90	2 1/2	60	26	650	4.57	116.1	6	3207	1455	4811 2182 1.1 4.0
HYCT9060130.4	3 1/2	90	2 1/2	60	51	1300	4.57	116.1	4	4811	2182	7216 3273 2.1 8.1
HYCT9060130.6	3 1/2	90	2 1/2	60	51	1300	4.57	116.1	6	3207	1455	4811 2182 2.1 8.1
HYCT1007575.4	4	100	3	75	30	750	5.5	139.7	4	6283	2850	9425 4275 1.6 6.1
HYCT1007575.6	4	100	3	75	30	750	5.5	139.7	6	4189	1900	6283 2850 1.6 6.1
HYCT10075150.4	4	100	3	75	59	1500	5.5	139.7	4	6283	2850	9425 4275 3.2 12.2
HYCT10075150.6	4	100	3	75	59	1500	5.5	139.7	6	4189	1900	6283 2850 3.2 12.2
HYCT1159090.4	4 1/2	115	3 1/2	90	35	900	6	152.4	4	7952	3607	11928 5411 2.4 9.2
HYCT1159090.6	4 1/2	115	3 1/2	90	35	900	6	152.4	6	5301	2405	7952 3607 2.4 9.2
HYCT11590180.4	4 1/2	115	3 1/2	90	71	1800	6	152.4	4	7952	3607	11928 5411 4.9 18.5
HYCT11590180.6	4 1/2	115	3 1/2	90	71	1800	6	152.4	6	5301	2405	7952 3607 4.9 18.5
HYCT130100100.4	5 1/8	130	4	100	39	1000	7	177.8	4	10314	4679	15472 7018 3.5 13.3
HYCT130100100.6	5 1/8	130	4	100	39	1000	7	177.8	6	6876	3119	10314 4679 3.5 13.3
HYCT130100200.4	5 1/8	130	4	100	79	2000	7	177.8	4	10314	4679	15472 7018 7.0 26.6
HYCT130100200.6	5 1/8	130	4	100	79	2000	7	177.8	6	6876	3119	10314 4679 7.0 26.6
HYCT145111515.4	5 3/4	145	4 1/2	115	45	1150	8	203.2	4	12984	5889	19475 8834 5.1 19.3
HYCT145111515.6	5 3/4	145	4 1/2	115	45	1150	8	203.2	6	8656	3926	12984 5889 5.1 19.3
HYCT145111520.4	5 3/4	145	4 1/2	115	91	2300	8	203.2	4	12984	5889	19475 8834 10.2 38.5
HYCT145111520.6	5 3/4	145	4 1/2	115	91	2300	8	203.2	6	8656	3926	12984 5889 10.2 38.5
HYCT165130125.4	6 1/2	165	5 1/8	130	49	1250	9	228.6	4	16592	7526	24887 11289 7.1 26.8
HYCT165130125.6	6 1/2	165	5 1/8	130	49	1250	9	228.6	6	11061	5017	16592 7526 7.1 26.8
HYCT165130250.4	6 1/2	165	5 1/8	130	98	2500	9	228.6	4	16592	7526	24887 11289 14.1 53.5
HYCT165130250.6	6 1/2	165	5 1/8	130	98	2500	9	228.6	6	11061	5017	16592 7526 14.1 53.5
HYCT190145125.4	7 1/2	190	5 3/4	145	49	1250	10	254.0	4	22089	10020	33134 15029 9.4 35.6
HYCT190145125.6	7 1/2	190	5 3/4	145	49	1250	10	254.0	6	14726	6680	22089 10020 9.4 35.6
HYCT190145250.4	7 1/2	190	5 3/4	145	98	2500	10	254.0	4	22089	10020	33134 15029 18.8 71.3
HYCT190145250.6	7 1/2	190	5 3/4	145	98	2500	10	254.0	6	14726	6680	22089 10020 18.8 71.3

*Sheet system friction not calculated

Racing Pedestal Drive Components

Gear Boxes

The bevel gear box is the basic building block of belt-drive pedestal systems. The B606 gear box is designed for up to a six-man, three-pedestal input. The B701 accommodates up to an eight-man, three-plus pedestal input.

Gear box housings are CNC-machined from a solid piece of aluminum, Hardkote-anodized for strength and durability. Gears, shafts, and rollers are 17-4PH stainless steel and are lubricated in a sealed oil bath for minimal maintenance.

Drive Shafts

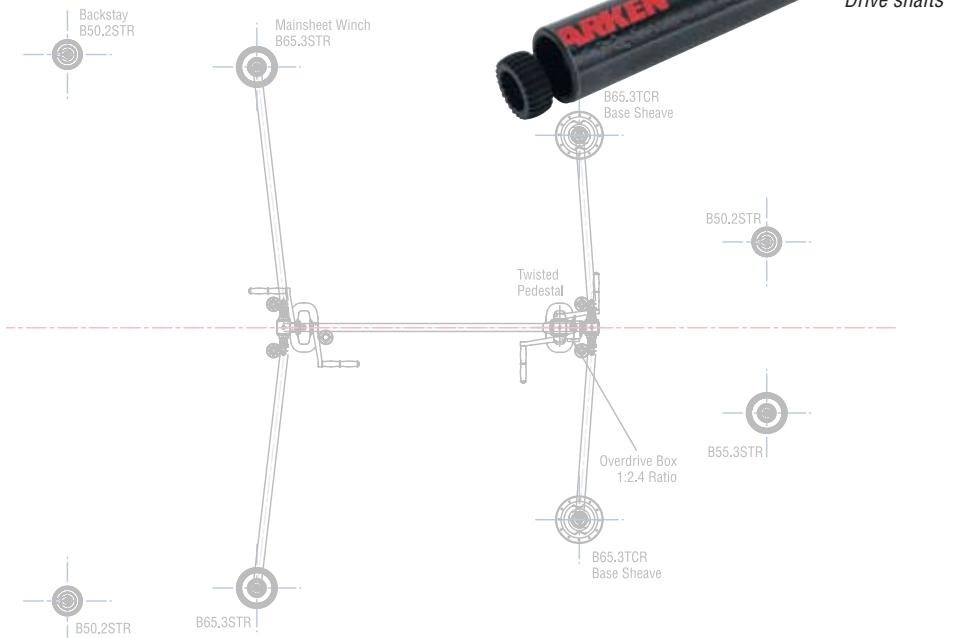
Harken® offers two types of drive shafts. Extruded, splined, aluminum drive shafts may be cut to length. Carbon tubular drive shafts are available with bonded end fittings for U-joints or spherical CV joints. Shaft choice is determined by load, cost, and weight considerations. Your Harken® representative can provide details on the best drive shaft for your boat.

Disconnects

System disconnects can be activated with either levers and control lines for hand operation, or a two-position push button for foot activation. The Harken foot button has fewer than 10 components, compared to almost 100 in other buttons, minimizing the possibility of losing or breaking parts. Foot button tops come in red, black or blue to distinguish functions above deck.

Support Shafts

To space and support a gear box beneath a winch, Harken® supplies tubes for the B606 and B701 series gear boxes. Tubes are made to length from carbon fiber/epoxy with bonded aluminum ends.



B606



B701



Universal Joint



B606 with overdrive



Drive shafts



Foot button disconnect



Grand Prix Cylinders

The table below lists common Grand Prix cylinder configurations. Contact Harken for weights and volumes, as these depend on your specifications for materials, pull force, stroke length, and cylinder diameter. 10,000 psi cylinders are available upon request.

Grand Prix cylinders are only intended for systems with a vigorous maintenance schedule, as they are built for extremely high loads at a minimal weight.



Part No.*	Cylinder housing material	Diameter						@ 5000 psi 345 bar		Pull force	
		Gap/pin in	mm	Bore in	mm	Rod in	mm	lb	kg	lb	kg
HYCS7198xxx	7075-T6 aluminum	5/16	7.9	3/4	19	5/16	8	1824	827	2736	1241
HYCST198xxx	titanium	5/16	7.9	3/4	19	5/16	8	1824	827	2736	1241
HYCS72510xxx	7075-T6 aluminum	3/8	9.5	1	25	3/8	10	3375	1531	5062	2296
HYCST2510xxx	titanium	3/8	9.5	1	25	3/8	10	3375	1531	5062	2296
HYCS73211xxx	7075-T6 aluminum	7/16	11.1	1 1/4	32	7/16	11	5384	2442	8076	3663
HYCST3211xxx	titanium	7/16	11.1	1 1/4	32	7/16	11	5384	2442	8076	3663
HYCS73513xxx	7075-T6 aluminum	1/2	12.7	1 3/8	35	1/2	13	6443	2922	9664	4384
HYCST3513xxx	titanium	1/2	12.7	1 3/8	35	1/2	13	6443	2922	9664	4384
HYCS74013xxx	7075-T6 aluminum	1/2	12.7	1 1/2	40	1/2	13	7854	3563	11781	5344
HYCST4013xxx	titanium	1/2	12.7	1 1/2	40	1/2	13	7854	3563	11781	5344
HYCS74514xxx	7075-T6 aluminum	5/8	15.9	1 3/4	45	9/16	14	10784	4891	16176	7337
HYCST4514xxx	titanium	5/8	15.9	1 3/4	45	9/16	14	10784	4891	16176	7337
HYCS75016xxx	7075-T6 aluminum	5/8	15.9	2	50	5/8	16	14174	6429	21261	9644
HYCST5016xxx	titanium	5/8	15.9	2	50	5/8	16	14174	6429	21261	9644
HYCS75518xxx	7075-T6 aluminum	3/4	19.1	2 1/8	55	11/16	18	15877	7202	23815	10802
HYCST5518xxx	titanium	3/4	19.1	2 1/8	55	11/16	18	15877	7202	23815	10802
HYCS76521xxx	7075-T6 aluminum	7/8	22.2	2 1/2	65	13/16	21	21951	9957	32927	14935
HYCST6521xxx	titanium	7/8	22.2	2 1/2	65	13/16	21	21951	9957	32927	14935
HYCS77525xxx	7075-T6 aluminum	1	25.4	3	75	1	25	31416	14250	47124	21375
HYCST7525xxx	titanium	1	25.4	3	75	1	25	31416	14250	47124	21375
HYCS78029xxx	7075-T6 aluminum	1 1/4	31.8	3 1/8	80	1 1/8	29	33379	15141	50069	22711
HYCST8029xxx	titanium	1 1/4	31.8	3 1/8	80	1 1/8	29	33379	15141	50069	22711
HYCS79035xxx	7075-T6 aluminum	1 3/8	34.9	3 1/2	90	1 3/8	35	40681	18453	61022	27679
HYCST9035xxx	titanium	1 3/8	34.9	3 1/2	90	1 3/8	35	40681	18453	61022	27679
HYCS710038xxx	7075-T6 aluminum	1 1/2	38.1	4	100	1 1/2	38	53996	24492	80994	36738
HYCST10038xxx	titanium	1 1/2	38.1	4	100	1 1/2	38	53996	24492	80994	36738

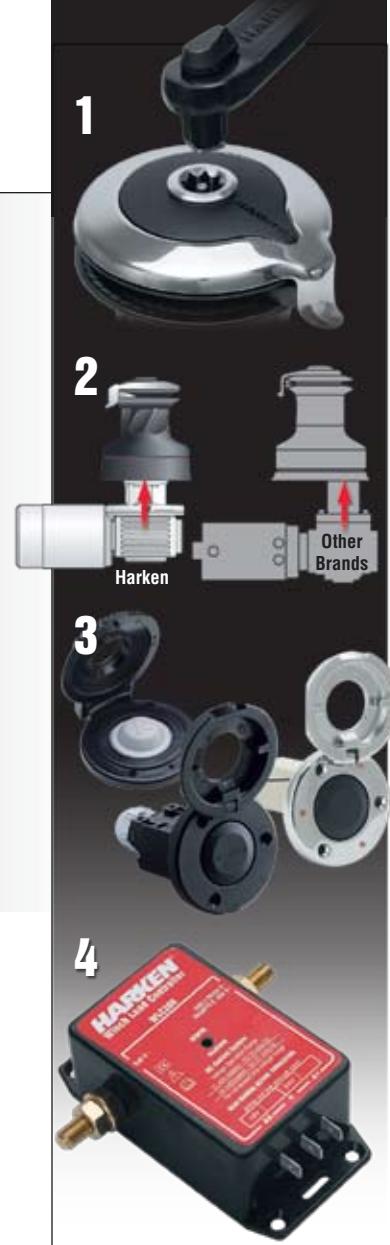
*When ordering, replace xxx with desired stroke length in millimeters.

Powered Radial Winches



PUSH-BUTTON CONTROL

Powered Radial winches allow crew to trim any size sail with the push of a button. Winches mount in minutes without removing the drum and can be quickly disassembled and serviced on deck. Seasonal maintenance is painless. Snap-fit socket, washer and screw top lift out as a unit, making reassembly fast and mistake free, with no leftover or misplaced parts to worry about.



DETAILS MAKE THE DIFFERENCE

MULTIPLE STYLES AND FINISHES

Winches available in aluminum alloy, chrome and in 2- and 3-speed self-tailing. Powered electric or hydraulic.

EASY TO CONVERT, INSTALL, SERVICE

The same drilling pattern is used to mount manual and electric winches of the same size. Other manufacturers must uninstall the existing manual winch, fill the old holes, and drill new holes before converting to electric winch power.

Builders can pre-drill a 3.00 inch (7.6 cm) gear shaft hole into the deck to simplify future conversion from manual to electric. Harken offers removable gaskets to seal the holes until upgrades are made.

Patent-pending stud-bolt mounting option allows quick installation without removing the drum.

Socket, washer, and screw-top snap-fit together to simplify maintenance and for mistake-free assembly.

INTEGRATED STRIPPER ARM

The strong, one-piece stripper arm completely covers the winch top for a stable platform that prevents fingers and clothing from catching in moving parts—an important safety feature, particularly when operating powered winches. The arm can be adjusted to multiple positions after the winch is mounted, and is shaped to smoothly feed line into and out of the self-tailing jaws.

1

2

3

4

1. Manual Override

A Harken® locking handle inserted into an unloaded winch automatically disconnects the motor gear for manual operation.

2. More Efficient Operation

Harken motors attach to the central drive shaft and drive through the winch gears for a two-speed mechanical advantage—the low-power first gear for fast trimming, the higher-power second gear for fine-tuning loaded sheets. The result is reduced battery drain, allowing more efficient use of the motor.

3. Reliable Switches

Winches operate with waterproof switches and reliable easy-to-service electric controls.

4. Winch Load Controller

This electronic system protects Harken® winches from overload by temporarily interrupting the power supply to the winch. The Load Controller comes installed with standard overload settings, but can be customized by request.

HydroTrim



Part No.	Bore Ø		Rod Ø		Stroke		Max Housing OD in mm	Reverse purchase	Max sheet load* at pressure		Oil volume cap end gal L	
	in	mm	in	mm	in	mm			2000 psi/138 bar lb kg	3000 psi/207 bar lb kg		
HYCT453235.4	1 3/4	45	1 1/4	32	14	350	2.27	57.7	4	1203	546	1804 818 0.14 0.5
HYCT453235.6	1 3/4	45	1 1/4	32	14	350	2.27	57.7	6	802	364	1203 546 0.14 0.5
HYCT453270.4	1 3/4	45	1 1/4	32	28	700	2.27	57.7	4	1203	546	1804 818 0.29 1.1
HYCT453270.6	1 3/4	45	1 1/4	32	28	700	2.27	57.7	6	802	364	1203 546 0.29 1.1
HYCT553840.4	2 3/16	55	1 1/2	38	16	400	2.86	72.6	4	1879	852	2819 1279 0.26 1.0
HYCT553840.6	2 3/16	55	1 1/2	38	16	400	2.86	72.6	6	1253	568	1879 852 0.26 1.0
HYCT553880.4	2 3/16	55	1 1/2	38	31	800	2.86	72.6	4	1879	852	2819 1279 0.51 1.9
HYCT553880.6	2 3/16	55	1 1/2	38	31	800	2.86	72.6	6	1253	568	1879 852 0.51 1.9
HYCT654850.4	2 1/2	65	1 7/8	48	20	500	3.17	80.5	4	2454	1113	3682 1670 0.42 1.6
HYCT654850.6	2 1/2	65	1 7/8	48	20	500	3.17	80.5	6	1636	742	2454 1113 0.42 1.6
HYCT6548100.4	2 1/2	65	1 7/8	48	39	1000	3.17	80.5	4	2454	1113	3682 1670 0.84 3.2
HYCT6548100.6	2 1/2	65	1 7/8	48	39	1000	3.17	80.5	6	1636	742	2454 1113 0.84 3.2
HYCT755460.4	3	75	2 1/8	54	24	600	3.8	96.5	4	3534	1603	5301 2405 0.72 2.7
HYCT755460.6	3	75	2 1/8	54	24	600	3.8	96.5	6	2356	1069	3534 1603 0.72 2.7
HYCT7554120.4	3	75	2 1/8	54	47	1200	3.8	96.5	4	3534	1603	5301 2405 1.4 5.5
HYCT7554120.6	3	75	2 1/8	54	47	1200	3.8	96.5	6	2356	1069	3534 1603 1.4 5.5
HYCT906065.4	3 1/2	90	2 1/2	60	26	650	4.57	116.1	4	4811	2182	7216 3273 1.1 4.0
HYCT906065.6	3 1/2	90	2 1/2	60	26	650	4.57	116.1	6	3207	1455	4811 2182 1.1 4.0
HYCT9060130.4	3 1/2	90	2 1/2	60	51	1300	4.57	116.1	4	4811	2182	7216 3273 2.1 8.1
HYCT9060130.6	3 1/2	90	2 1/2	60	51	1300	4.57	116.1	6	3207	1455	4811 2182 2.1 8.1
HYCT1007575.4	4	100	3	75	30	750	5.5	139.7	4	6283	2850	9425 4275 1.6 6.1
HYCT1007575.6	4	100	3	75	30	750	5.5	139.7	6	4189	1900	6283 2850 1.6 6.1
HYCT10075150.4	4	100	3	75	59	1500	5.5	139.7	4	6283	2850	9425 4275 3.2 12.2
HYCT10075150.6	4	100	3	75	59	1500	5.5	139.7	6	4189	1900	6283 2850 3.2 12.2
HYCT1159090.4	4 1/2	115	3 1/2	90	35	900	6	152.4	4	7952	3607	11928 5411 2.4 9.2
HYCT1159090.6	4 1/2	115	3 1/2	90	35	900	6	152.4	6	5301	2405	7952 3607 2.4 9.2
HYCT11590180.4	4 1/2	115	3 1/2	90	71	1800	6	152.4	4	7952	3607	11928 5411 4.9 18.5
HYCT11590180.6	4 1/2	115	3 1/2	90	71	1800	6	152.4	6	5301	2405	7952 3607 4.9 18.5
HYCT130100100.4	5 1/8	130	4	100	39	1000	7	177.8	4	10314	4679	15472 7018 3.5 13.3
HYCT130100100.6	5 1/8	130	4	100	39	1000	7	177.8	6	6876	3119	10314 4679 3.5 13.3
HYCT130100200.4	5 1/8	130	4	100	79	2000	7	177.8	4	10314	4679	15472 7018 7.0 26.6
HYCT130100200.6	5 1/8	130	4	100	79	2000	7	177.8	6	6876	3119	10314 4679 7.0 26.6
HYCT145111515.4	5 3/4	145	4 1/2	115	45	1150	8	203.2	4	12984	5889	19475 8834 5.1 19.3
HYCT145111515.6	5 3/4	145	4 1/2	115	45	1150	8	203.2	6	8656	3926	12984 5889 5.1 19.3
HYCT145111520.4	5 3/4	145	4 1/2	115	91	2300	8	203.2	4	12984	5889	19475 8834 10.2 38.5
HYCT145111520.6	5 3/4	145	4 1/2	115	91	2300	8	203.2	6	8656	3926	12984 5889 10.2 38.5
HYCT165130125.4	6 1/2	165	5 1/8	130	49	1250	9	228.6	4	16592	7526	24887 11289 7.1 26.8
HYCT165130125.6	6 1/2	165	5 1/8	130	49	1250	9	228.6	6	11061	5017	16592 7526 7.1 26.8
HYCT165130250.4	6 1/2	165	5 1/8	130	98	2500	9	228.6	4	16592	7526	24887 11289 14.1 53.5
HYCT165130250.6	6 1/2	165	5 1/8	130	98	2500	9	228.6	6	11061	5017	16592 7526 14.1 53.5
HYCT190145125.4	7 1/2	190	5 3/4	145	49	1250	10	254.0	4	22089	10020	33134 15029 9.4 35.6
HYCT190145125.6	7 1/2	190	5 3/4	145	49	1250	10	254.0	6	14726	6680	22089 10020 9.4 35.6
HYCT190145250.4	7 1/2	190	5 3/4	145	98	2500	10	254.0	4	22089	10020	33134 15029 18.8 71.3
HYCT190145250.6	7 1/2	190	5 3/4	145	98	2500	10	254.0	6	14726	6680	22089 10020 18.8 71.3

*Sheet system friction not calculated

NEW

RADIAL WINCH LINE

Electric Radial

Electric Radial winches let you relax in luxury and trim any size sail with the push of a button.

Lightweight aluminum or mirror-finished chrome drums, and high-strength composite self-tailing jaws and skirt save weight. Composite roller bearings reduce friction under load and don't require lubrication. Load-carrying gears and pins are 17-4PH stainless steel for strength and durability.

Manual Radials easily convert to power. They don't require an adapter plate, and the identical stud pattern means no filling old holes and drilling new ones. Boatbuilders can make upgrades even easier by precutting and sealing a 3.00 in (7.6 cm) drive-shaft hole into the boat.

Winches can be mounted vertically or horizontally and operate using waterproof switches located near the winch. A locking handle inserted into an unloaded winch automatically disconnects the motor gear for manual operation.

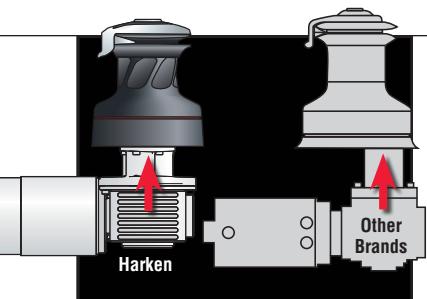
Size 40 available in 12 volt only. Sizes 46 through 80 available in 12 or 24 volts.



HORIZONTAL



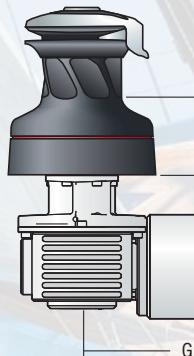
VERTICAL



Harken motors attach to the central drive shaft and drive through the winch gears for a two-speed mechanical advantage—the low power first gear for fast trimming, the higher power second gear for fine-tuning loaded sheets. The result is reduced battery drain, allowing more efficient use of the motor.

Part No.	Ø			Weight			Fastener Circle	Fasteners (SH or HH)	Line entry height (LE)			Gear ratio			Power ratio							
	Drum (D) in mm	Base (B) in mm	Height (H) in mm	A lb kg	C lb kg	123			5 x 1/4	5 x 6	3 1/4	82	2.13	6.28	—	13.50	39.90	—				
Horizontal																						
40.2STEH	3 1/8	80	6 3/16	157	6 7/8	175	29.7	13.5	33.2	15.1	4 7/8	123	5 x 1/4	5 x 6	3 1/4	82	2.13	6.28	—	13.50	39.90	—
46.2STEH	3 1/8	100	7 1/4	184	7 15/16	201	32.8	14.9	38.5	17.5	5 7/8	150	5 x 5/16	5 x 8	3 9/16	90	2.30	9.17	—	11.70	46.50	—
50.2STEH	4 5/16	110	7 5/8	194	8 1/8	206	37.1	16.8	44.2	20.0	5 7/8	150	5 x 5/16	5 x 8	3 7/8	97	2.40	10.90	—	10.90	50.40	—
60.2STEH	4 3/4	120	9 1/8	232	9 11/16	246	46.4	21.0	54.5	24.7	8	204	6 x 5/16	6 x 8	4 9/16	116	4.80	14.40	—	20.30	61.00	—
60.3STEH	4 3/4	120	9 1/8	232	9 11/16	246	49.7	22.5	57.8	26.2	8	204	6 x 5/16	6 x 8	4 9/16	116	2.20	4.80	14.40	9.20	20.30	61.00
70.2STEH	5 1/8	130	9 7/16	240	10 1/16	256	48.8	22.1	57.2	25.9	8 1/8	205	6 x 5/16	6 x 8	4 1/2	115	5.70	22.30	—	22.20	72.00	—
70.3STEH	5 1/8	130	9 7/16	240	10 1/16	256	52.1	23.6	60.5	27.4	8 1/8	205	6 x 5/16	6 x 8	4 1/2	115	2.30	5.70	22.30	9.00	22.20	72.00
80.2STEH	6 7/8	175	11 5/16	287	12 9/16	320	70.6	32.0	87.2	39.5	9 9/16	233	8 x 3/8	8 x 10	6 7/16	164	9.40	28.10	—	32.10	93.00	—
80.3STEH	6 7/8	175	11 5/16	287	12 9/16	320	74.0	33.5	90.5	41.0	9 9/16	233	8 x 3/8	8 x 10	6 7/16	164	2.23	9.40	28.10	6.50	32.10	93.00
Vertical																						
46.2STEV	3 1/8	100	7 1/4	184	7 15/16	201	36.9	16.7	42.6	19.3	5 7/8	150	5 x 5/16	5 x 8	3 9/16	90	2.30	9.17	—	11.70	46.50	—
50.2STEV	4 5/16	110	7 5/8	194	8 1/8	206	38.6	17.5	45.7	20.7	5 7/8	150	5 x 5/16	5 x 8	3 7/8	97	2.40	10.90	—	10.90	50.40	—
60.2STEV	4 3/4	120	9 1/8	232	9 11/16	246	47.9	21.7	56.1	25.4	8	204	6 x 5/16	6 x 8	4 9/16	116	4.80	14.40	—	20.30	61.00	—
60.3STEV	4 3/4	120	9 1/8	232	9 11/16	246	51.2	23.2	59.4	26.9	8	204	6 x 5/16	6 x 8	4 9/16	116	2.20	4.80	14.40	9.20	20.30	61.00
70.2STEV	5 1/8	130	9 7/16	240	10 1/16	256	50.3	22.8	58.7	26.6	8 1/8	205	6 x 5/16	6 x 8	4 1/2	115	5.70	22.30	—	22.20	72.00	—
70.3STEV	5 1/8	130	9 7/16	240	10 1/16	256	53.6	24.3	62.0	28.1	8 1/8	205	6 x 5/16	6 x 8	4 1/2	115	2.30	5.70	22.30	9.00	22.20	72.00
80.2STEV	6 7/8	175	11 5/16	287	12 9/16	320	72.2	32.7	88.7	40.2	9 9/16	233	8 x 3/8	8 x 10	6 7/16	164	9.40	28.10	—	32.10	93.00	—
80.3STEV	6 7/8	175	11 5/16	287	12 9/16	320	75.5	34.2	92.1	41.7	9 9/16	233	8 x 3/8	8 x 10	6 7/16	164	2.23	9.40	28.10	6.50	32.10	93.00

Electric Motors

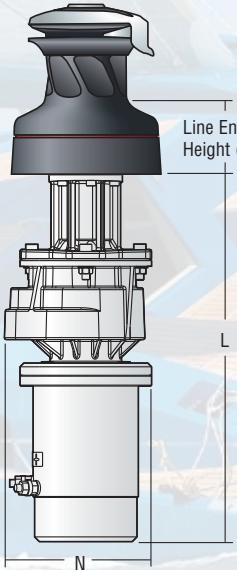


Line Entry Height (LE)

E

F

G



Line Entry Height (LE)

L

N

Zeydon 60 — René Dupont photo



Dimensions

Part No.	E in	E mm	F in	F mm	G in	G mm	L in	L mm	N in	N mm
40.2STEH	1 3/4	43	6 1/8	155	8 5/8	227	—	—	—	—
46.2STEH	1 3/4	43	6 1/8	155	8 5/8	227	—	—	—	—
46.2STEV	—	—	—	—	—	—	15 5/8	391	6 1/8	157
50.2STEH	1 3/4	43	6 1/8	155	9 5/8	244	—	—	—	—
50.2STEV	—	—	—	—	—	—	15 5/8	391	6 1/8	157
60.2STEH	1 3/4	43	6 1/8	155	9 5/8	244	—	—	—	—
60.2STEV	—	—	—	—	—	—	15 5/8	391	6 1/8	157
60.3STEH	1 3/4	43	6 1/8	155	9 5/8	244	—	—	—	—
60.3STEV	—	—	—	—	—	—	15 5/8	391	6 1/8	157
70.2STEH	1 3/4	43	6 1/8	155	9 5/8	244	—	—	—	—
70.2STEV	—	—	—	—	—	—	15 5/8	391	6 1/8	157
70.3STEH	1 3/4	43	6 1/8	155	9 5/8	244	—	—	—	—
70.3STEV	—	—	—	—	—	—	15 5/8	391	6 1/8	157
80.2STEH	3 3/16	81	8 11/16	221	10 11/16	272	—	—	—	—
80.2STEV	—	—	—	—	—	—	16 3/4	425	6 5/16	160
80.3STEH	3 3/16	81	8 11/16	221	10 11/16	272	—	—	—	—
80.3STEV	—	—	—	—	—	—	16 3/4	425	6 5/16	160

Winch size	Motor configuration		Current voltage		Power in Watts	
	Horizontal (STEH)	Vertical (STEV)	12 V	24 V	12 V	24 V
40.2	✓	—	✓	—	700	—
46.2	✓	✓	✓	✓	700	900
50.2	✓	✓	✓	✓	1500	2000
60.2 - 60.3	✓	✓	✓	✓	1500	2000
70.2 - 70.3	✓	✓	✓	✓	1500	2000
80.2 - 80.3	✓	✓	✓	✓	1500	2000

Wire Gauges

Winch size	Current voltage	Total distance between winch and battery									
		Under 16.4 ft AWG	Under 5 m mm ²	16.4 - 32.8 ft AWG	5 m - 10 m mm ²	32.8 - 49.2 ft AWG	10 m - 15 m mm ²	49.2 - 65.6 ft AWG	15 m - 20 m mm ²		
40.2	12 V	2	32	0	50	00	70	000	95		
46.2	12 V	2	32	0	50	00	70	000	95		
46.2	24 V	5	16	3	25	2	35	0	50		
50.2	12 V	2	32	0	50	00	70	000	95		
50.2	24 V	5	16	3	25	2	35	0	50		
60.2 - 60.3	12 V	2	32	0	50	00	70	000	95		
60.2 - 60.3	24 V	5	16	3	25	2	35	0	50		
70.2 - 70.3	12 V	2	32	0	50	00	70	000	95		
70.2 - 70.3	24 V	5	16	3	25	2	35	0	50		
80.2 - 80.3	12 V	2	32	0	50	00	70	000	95		
80.2 - 80.3	24 V	5	16	3	25	2	35	0	50		

WINCH Q&A

CAN I USE A WINCH HANDLE TO MANUALLY OPERATE MY ELECTRIC WINCH?

Yes. Inserting the winch handle into an unloaded winch automatically disconnects the electric motor and allows you to use 1st and 2nd speeds just like a manual winch. This is important if you've lost power on the boat. If power is restored, the lockout prevents the winch handle from turning.

Put the smooth back in sailing



SAILKOTE™

High Performance Dry Lubricant

Use on hatches, drawers, sliding doors, sail tracks, mast tracks and slides, engine lower units, propellers and bow thrusters, fishing reel components and fly line, sails, battens and telltales, slider cars and tracks

- Repels water, dirt, salt and contaminants
- Reduces drag in air and water
- Clean, dry and easy-to-use
- Lasts up to 10 times longer than Teflon® additives, oil or wax-based lubricants

HULLKOTE™

High Performance Speed Polish

Use on fiberglass, metal, plexiglass and painted surfaces

- Cleans, polishes and protects
- Reduces drag and repels water
- Environmentally friendly citrus base
- Long-lasting, high-gloss finish
- Superior UV protection

ONEDROP™

Ball Bearing Conditioner

Use on ball bearing traveler cars and battcars

- Repels salt, dirt and other deposits
- Protects, lubricates and conditions bearing surfaces
- Reduces friction so balls to roll freely and evenly, greatly improving performance
- Only one drop needed

Team
McLube™

www.mclubemarine.com

Garage Storage

Store everything from canoes and kayaks to bikes, ladders and roof racks at ceiling level.

Easy to Install • Complete kit • Self-locking

Easy to Use

One person can raise and lower with a single control rope.



7800 Bike/utility lift



7807
Two-point
lift system



7801, 7802
7803, 7806
Storage system

Part No.	Mechanical Advantage	Max vertical lift*	Minimum working load	Working load limit	lb	kg	lb	kg
7800	2:1	8	2.4	10	4.5	20		
7801	3:1	8.5	2.6	15	7	27		
7802	4:1	8.5	2.6	25	11	41		
7803	6:1	8.5	2.6	45	20	145	66	
7806	8:1	8.5	2.6	75	34	200	91	
7807	3:1	8.5	2.6	15	7	27		

*With 10 ft (3 m) ceiling



www.hoister.com

HydroTrim



Part No.	Bore Ø		Rod Ø		Stroke		Max Housing OD in mm	Reverse purchase	Max sheet load* at pressure		Oil volume cap end gal L	
	in	mm	in	mm	in	mm			2000 psi/138 bar lb kg	3000 psi/208 bar lb kg		
HYCT453235.4	1 3/4	45	1 1/4	32	14	350	2.27	57.7	4	1203	546	1804 818 0.14 0.5
HYCT453235.6	1 3/4	45	1 1/4	32	14	350	2.27	57.7	6	802	364	1203 546 0.14 0.5
HYCT453270.4	1 3/4	45	1 1/4	32	28	700	2.27	57.7	4	1203	546	1804 818 0.29 1.1
HYCT453270.6	1 3/4	45	1 1/4	32	28	700	2.27	57.7	6	802	364	1203 546 0.29 1.1
HYCT553840.4	2 3/16	55	1 1/2	38	16	400	2.86	72.6	4	1879	852	2819 1279 0.26 1.0
HYCT553840.6	2 3/16	55	1 1/2	38	16	400	2.86	72.6	6	1253	568	1879 852 0.26 1.0
HYCT553880.4	2 3/16	55	1 1/2	38	31	800	2.86	72.6	4	1879	852	2819 1279 0.51 1.9
HYCT553880.6	2 3/16	55	1 1/2	38	31	800	2.86	72.6	6	1253	568	1879 852 0.51 1.9
HYCT654850.4	2 1/2	65	1 7/8	48	20	500	3.17	80.5	4	2454	1113	3682 1670 0.42 1.6
HYCT654850.6	2 1/2	65	1 7/8	48	20	500	3.17	80.5	6	1636	742	2454 1113 0.42 1.6
HYCT6548100.4	2 1/2	65	1 7/8	48	39	1000	3.17	80.5	4	2454	1113	3682 1670 0.84 3.2
HYCT6548100.6	2 1/2	65	1 7/8	48	39	1000	3.17	80.5	6	1636	742	2454 1113 0.84 3.2
HYCT755460.4	3	75	2 1/8	54	24	600	3.8	96.5	4	3534	1603	5301 2405 0.72 2.7
HYCT755460.6	3	75	2 1/8	54	24	600	3.8	96.5	6	2356	1069	3534 1603 0.72 2.7
HYCT7554120.4	3	75	2 1/8	54	47	1200	3.8	96.5	4	3534	1603	5301 2405 1.4 5.5
HYCT7554120.6	3	75	2 1/8	54	47	1200	3.8	96.5	6	2356	1069	3534 1603 1.4 5.5
HYCT906065.4	3 1/2	90	2 1/2	60	26	650	4.57	116.1	4	4811	2182	7216 3273 1.1 4.0
HYCT906065.6	3 1/2	90	2 1/2	60	26	650	4.57	116.1	6	3207	1455	4811 2182 1.1 4.0
HYCT9060130.4	3 1/2	90	2 1/2	60	51	1300	4.57	116.1	4	4811	2182	7216 3273 2.1 8.1
HYCT9060130.6	3 1/2	90	2 1/2	60	51	1300	4.57	116.1	6	3207	1455	4811 2182 2.1 8.1
HYCT1007575.4	4	100	3	75	30	750	5.5	139.7	4	6283	2850	9425 4275 1.6 6.1
HYCT1007575.6	4	100	3	75	30	750	5.5	139.7	6	4189	1900	6283 2850 1.6 6.1
HYCT10075150.4	4	100	3	75	59	1500	5.5	139.7	4	6283	2850	9425 4275 3.2 12.2
HYCT10075150.6	4	100	3	75	59	1500	5.5	139.7	6	4189	1900	6283 2850 3.2 12.2
HYCT1159090.4	4 1/2	115	3 1/2	90	35	900	6	152.4	4	7952	3607	11928 5411 2.4 9.2
HYCT1159090.6	4 1/2	115	3 1/2	90	35	900	6	152.4	6	5301	2405	7952 3607 2.4 9.2
HYCT11590180.4	4 1/2	115	3 1/2	90	71	1800	6	152.4	4	7952	3607	11928 5411 4.9 18.5
HYCT11590180.6	4 1/2	115	3 1/2	90	71	1800	6	152.4	6	5301	2405	7952 3607 4.9 18.5
HYCT130100100.4	5 1/8	130	4	100	39	1000	7	177.8	4	10314	4679	15472 7018 3.5 13.3
HYCT130100100.6	5 1/8	130	4	100	39	1000	7	177.8	6	6876	3119	10314 4679 3.5 13.3
HYCT130100200.4	5 1/8	130	4	100	79	2000	7	177.8	4	10314	4679	15472 7018 7.0 26.6
HYCT130100200.6	5 1/8	130	4	100	79	2000	7	177.8	6	6876	3119	10314 4679 7.0 26.6
HYCT145111515.4	5 3/4	145	4 1/2	115	45	1150	8	203.2	4	12984	5889	19475 8834 5.1 19.3
HYCT145111515.6	5 3/4	145	4 1/2	115	45	1150	8	203.2	6	8656	3926	12984 5889 5.1 19.3
HYCT145111520.4	5 3/4	145	4 1/2	115	91	2300	8	203.2	4	12984	5889	19475 8834 10.2 38.5
HYCT145111520.6	5 3/4	145	4 1/2	115	91	2300	8	203.2	6	8656	3926	12984 5889 10.2 38.5
HYCT165130125.4	6 1/2	165	5 1/8	130	49	1250	9	228.6	4	16592	7526	24887 11289 7.1 26.8
HYCT165130125.6	6 1/2	165	5 1/8	130	49	1250	9	228.6	6	11061	5017	16592 7526 7.1 26.8
HYCT165130250.4	6 1/2	165	5 1/8	130	98	2500	9	228.6	4	16592	7526	24887 11289 14.1 53.5
HYCT165130250.6	6 1/2	165	5 1/8	130	98	2500	9	228.6	6	11061	5017	16592 7526 14.1 53.5
HYCT190145125.4	7 1/2	190	5 3/4	145	49	1250	10	254.0	4	22089	10020	33134 15029 9.4 35.6
HYCT190145125.6	7 1/2	190	5 3/4	145	49	1250	10	254.0	6	14726	6680	22089 10020 9.4 35.6
HYCT190145250.4	7 1/2	190	5 3/4	145	98	2500	10	254.0	4	22089	10020	33134 15029 18.8 71.3
HYCT190145250.6	7 1/2	190	5 3/4	145	98	2500	10	254.0	6	14726	6680	22089 10020 18.8 71.3

*Sheet system friction not calculated

NEW

RADIAL WINCH LINE

UniPower Radial

The UniPower is a single-speed winch that combines the advantages of a low-profile manual winch with the power of a 12-volt or 24-volt, low-amp-draw motor. What makes it unique is that the motor is partially imbedded inside the drum, so that it extends only 4 1/8 inches (105 mm) below the winch base—a critical feature for small boats where space under the cabin top is limited.

Winch drums come in durable lightweight aluminum or mirror-finished chrome. High-strength composite self-tailing jaws and skirt save weight. Composite roller bearings reduce friction under load and don't require lubrication. The stripper arm and load-carrying gears on both aluminum and chrome versions are 17-4PH stainless steel for strength and durability.

The UniPower is designed with a maximum pull of 900 kg (1,984 lb). Harken's WLC200R load controller keeps the winch from exceeding this limit. In case the boat loses power, the winch can be operated manually using a winch handle.

The UniPower winch package includes a winch, one-speed control box, WLC200R Harken load controller, and a waterproof switch.



Dehler 34, Simona's Voodo — Dehler Yachts photo



WINCH Q&A

I'D LIKE TO MOUNT AN ELECTRIC WINCH ON THE CABIN TOP, BUT IT LIMITS SPACE BELOW. ANY SUGGESTIONS?

The motor on the Harken UniPower winch is partially embedded inside the drum and extends only 4 1/8 inches (105 mm) below the base. This gives crew more headroom as well as space to move around.

Part No.	Ø		Height				Weight			Line Ø (Min - Max)		Fastener Circle in	Fasteners (SH or HH) in	Line entry height (LE) in	Gear ratio	Power ratio						
	Drum (D) in	Base (B) mm	Abovedeck in	Belowdeck mm	A in	B mm	C lb	A kg	B lb	C kg	in	mm										
900UPW	3 7/8	100	7 1/2	190	8 1/2	215	4 1/8	105	26.5	12.0	32.0	14.5	5/16 - 9/16	8 - 14	6 5/16	160	5 x 1/4	5 x 6	3 15/16	100	100	9.75

NEW

HCP1720, WLC200R

Electric Components

Each electric winch requires one control box, one breaker, and two switches. Harken recommends adding an optional load controller. For winches larger than B980, please contact Harken. Hydraulic units require two switches.

Switches

Harken® offers simple, waterproof switches for electric and hydraulic winches. Order two switches for each winch.

Electrical Control Boxes

Electric control boxes contain solenoids to operate the winches. Based on winch size and voltage, select one control box for each electric winch.

High-Amperage Circuit Breakers

Harken® offers five panel-mount, high-amperage circuit breakers. They are compact, waterproof, weather-resistant, and ignition-protected. Circuit breakers are available for 12 or 24 volts DC systems.

Load Controllers

The winch load controller is an electronic system that protects Harken® winches from overload by temporarily interrupting the power supply to the winch. The Load Controller comes installed with standard overload settings, but can be customized on request. Use WLC200R with Radial winches. For further information contact Harken® Italy.



WINCH Q&A

DOES IT MATTER WHETHER I HAVE A 12- OR 24-VOLT SYSTEM?

Yes. Check your system and specify voltage before ordering. A 24-volt system requires half as much amperage, so the wire and circuit breaker (fuse) can have lower amperage rating. Larger winches, such as the 1110, 1120 and 1140, are available in 24-volt. Most boats in the USA are 12-volt. Boats using 24-volt systems are more common in Europe.

Deck Switches

Part No.	Description	Length in	Width mm	Length mm	Width in	Height mm	Weight oz	Weight g	
BRS102/P/S	Remote switch w/guard	2 ¹¹ / ₁₆	68	2 ¹¹ / ₁₆	68	1 ³ / ₁₆	21	4.5	128
BRS104/P	Remote switch w/guard	3 ³ / ₈	85	3	76	3 ¹ / ₄	19	3.4	95

Electric Control Boxes

Part No.	Voltage	Length in	Width mm	Height in	Weight oz	Weight g	Use with winch
BEB500.12.1	12	5 ¹ / ₂	140	3 ⁵ / ₃₂	80	4 ¹¹ / ₃₂	110 35.3 1000
BEB1000.12.1	12	5 ¹ / ₂	140	3 ⁵ / ₃₂	80	4 ¹¹ / ₃₂	110 35.3 1000
BEB1000.24.1	24	5 ¹ / ₂	140	3 ⁵ / ₃₂	80	4 ¹¹ / ₃₂	110 35.3 1000

Circuit Breakers

Part No.	Max amps	Power watts	Use with winch
24 Volt			
HCP1717	80	2000	Radial: 46.2STE to 70.2STE Classic: B44.2STE to B980.2STE
12 Volt			
HCP1717	80	500	Radial: 40.2STE & 46.2STE Classic: B40.2STE
HCP1718	100	1500	Classic: B44.2STE to B60.2STE
HCP1719	150	1500	Classic: B70.2STE to B980.2STE
HCP1720	135	1500	Radial: 50.2STE to 70.2STE

Load Controllers

Part No.	Use with winch	Voltage	Motor power watts	Cut-off load*	Length in	Width mm	Height in	Weight oz	Weight g
Radial									
WLC200R.40.12	40	12	700	1320	600	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200R.46.12	46	12	700	1740	790	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200R.46.24	46	24	900	1740	790	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200R.50.12	50	12	1500	1880	850	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200R.50.24	50	24	2000	1880	850	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200R.60-70.12	60/70	12	1500	2535/3530	1150/1600	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200R.60-70.24	60/70	12	2000	2535/3530	1150/1600	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
Classic									
WLC200.12.1	B40	12	500	1210	550	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200.12.2	B44/B46	12	1500	1985/2051	900/930	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200.24.1	B44/B46	24	2000	1985/2051	900/930	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200.12.3	B48/B53	12	1500	2205/2425	1000/1100	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210
WLC200.24.2	B48/B53	24	2000	2205/2425	1000/1100	3 ¹¹ / ₃₂	85	2 ⁷ / ₃₂	56 1 ³ / ₈ 35 7.4 210

*Contact Harken Italy for customized load presets

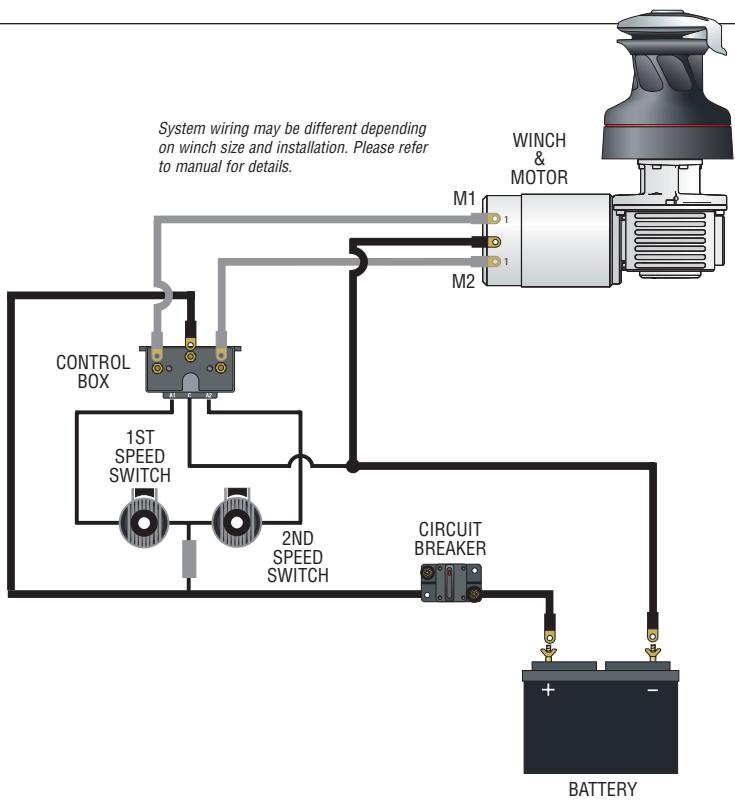
Electric Systems

Battery voltage and winch size determine which control boxes, circuit breakers, and load controllers you should use. For winches size B1110 and above, contact Harken for appropriate components.

Electric Winch Kits

Kits are offered for the most common winches. Kits include the winch and a horizontal motor, a control box, a circuit breaker, and two BRS104/P switches. Please include the full part number of the winch, including materials code and voltage, when ordering a kit.

System wiring may be different depending on winch size and installation. Please refer to manual for details.



Kit



Winch size	Control box		Circuit breaker		Load controller (optional)*		Kit**
	12 V	24 V	12 V	24 V	12 V	24 V	
Radial							
40.2STE	BEB1000.12.1	—	HCP1717	—	WLC200R.40.12	—	K40.2STE
46.2STE	BEB1000.12.1	BEB1000.24.1	HCP1717	HCP1717	WLC200R.46.12	WLC200R.46.24	K46.2STE
50.2STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	WLC200R.50.12	WLC200R.50.24	K50.2STE
60.2STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	WLC200R.60-70.12	WLC200R.60-70.24	K60.2STE
60.3STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	—	—	K60.3STE
70.2STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	WLC200R.60-70.12	WLC200R.60-70.24	K70.2STE
70.3STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	—	—	K70.3STE
80.2STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	—	—	K80.2STE
80.3STE	BEB1000.12.1	BEB1000.24.1	HCP1720	HCP1717	—	—	K80.3STE
Classic							
B40.2STE	BEB500.12.1	—	HCP1717	—	WLC200.12.1	—	BK40.2STE
B44.2STE	BEB1000.12.1	BEB1000.24.1	HCP1718	HCP1716	WLC200.12.2	WLC200.24.1	BK44.2STE
B46.2STE	BEB1000.12.1	BEB1000.24.1	HCP1718	HCP1716	WLC200.12.2	WLC200.24.1	BK46.2STE
B48.2STE	BEB1000.12.1	BEB1000.24.1	HCP1718	HCP1716	WLC200.12.3	WLC200.24.2	BK48.2STE
B53.2STE	BEB1000.12.1	BEB1000.24.1	HCP1718	HCP1716	WLC200.12.3	WLC200.24.2	BK53.2STE
B60.2STE	BEB1000.12.1	BEB1000.24.1	HCP1718	HCP1717	—	—	BK60.2STE
B70.2STE	BEB1000.12.1	BEB1000.24.1	HCP1719	HCP1717	—	—	BK70.2STE
B74.2STE	BEB1000.12.1	BEB1000.24.1	HCP1719	HCP1717	—	—	BK74.2STE
B980.2STE	BEB1000.12.1	BEB1000.24.1	HCP1719	HCP1717	—	—	—
B980.3STE	BEB1000.12.1	BEB1000.24.1	HCP1719	HCP1717	—	—	—

*Load controller not included in kit **Kits not available from all dealers

NEW

RADIAL WINCH LINE

Hydraulic Radial

Hydraulic Radial winches let you relax in luxury and trim any size sail with the push of a button.

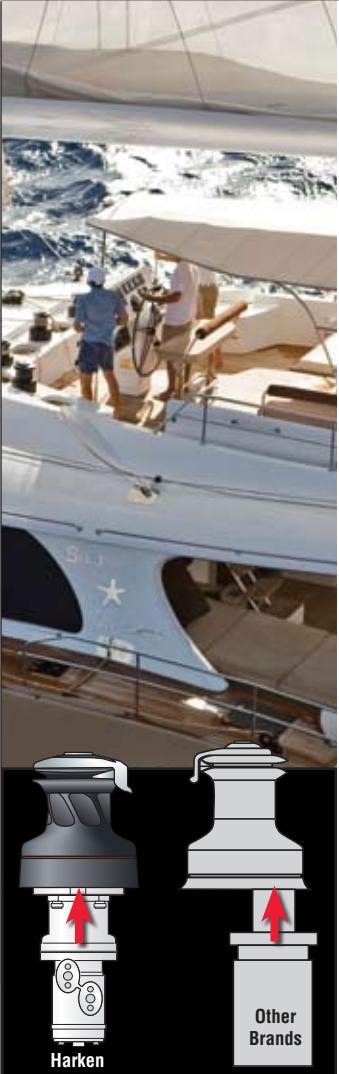
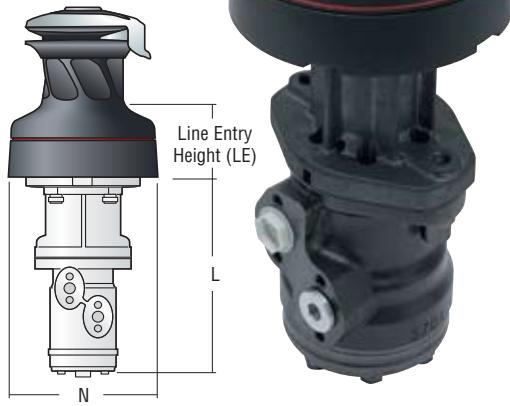
Lightweight aluminum or mirror-finished chrome drums, and high-strength composite self-tailing jaws and skirt save weight. Composite roller bearings reduce friction under load and don't require lubrication. Load-carrying gears and pins are 17-4PH stainless steel for strength and durability.

Manual Radials easily convert to power. They don't require an adapter plate and the identical stud pattern means no filling and drilling holes. Boatbuilders can make future upgrades even easier by precutting and sealing a 3.00 inch (7.6 cm) drive shaft hole.

Winches mount vertically and operate using waterproof switches located near the winch. A locking handle inserted into an unloaded winch automatically disconnects the motor gear for manual operation.



Sunreef 70

Harken
Other Brands

Part No.	Line entry height (LE)		L	N
	in	mm		
46.2STH	3 9/16	90	9 1/4	234
50.2STH	3 7/8	97	9 1/4	234
60.2STH	4 9/16	116	9 1/4	234
60.3STH	4 9/16	116	9 1/4	234
70.2STH	4 1/2	115	9 1/4	234
70.3STH	4 1/2	115	9 1/4	234
80.2STH	6 7/16	164	9 7/8	250
80.3STH	6 7/16	164	9 7/8	250

Part No.	Ø			Weight			Line Ø (Min - Max)	Fastener circle	Fasteners (SH or HH)	Gear ratio			Power ratio									
	Drum (D)	Base (B)	Height (H)	A	C	(lb kg)	in mm	in mm	in mm	1	2	3	1	2	3							
46.2STH	3 7/8	100	7 1/4	184	7 15/16	201	28.0	12.7	33.8	15.3	5/16 - 9/16	8 - 14	5 1/8	150	5 x 5/16	5 x 8	2.30	9.17	—	11.70	46.50	—
50.2STH	4 9/16	110	7 5/8	194	8 7/8	206	29.8	13.5	36.9	16.7	5/16 - 9/16	8 - 14	5 1/8	150	5 x 5/16	5 x 8	2.40	10.90	—	10.90	50.40	—
60.2STH	4 3/4	120	9 1/8	232	9 11/16	246	39.1	17.7	47.2	21.4	5/16 - 5/8	8 - 16	8	204	6 x 5/16	6 x 8	4.80	14.40	—	20.30	61.00	—
60.3STH	4 3/4	120	9 1/8	232	9 11/16	246	42.4	19.2	50.6	22.9	5/16 - 5/8	8 - 16	8	204	6 x 5/16	6 x 8	2.20	4.80	14.40	9.20	20.30	61.00
70.2STH	5 1/8	130	9 7/16	240	10 7/16	256	41.5	18.8	49.9	22.6	3/8 - 11/16	10 - 18	8 1/8	205	6 x 5/16	6 x 8	5.70	22.30	—	22.20	72.00	—
70.3STH	5 1/8	130	9 7/16	240	10 7/16	256	44.8	20.3	53.2	24.1	3/8 - 11/16	10 - 18	8 1/8	205	6 x 5/16	6 x 8	2.30	5.70	22.30	9.00	22.20	72.00
80.2STH	6 7/8	175	11 9/16	287	12 7/16	320	66.4	30.1	83.0	37.6	3/8 - 13/16	10 - 20	9 7/16	233	8 x 3/8	8 x 10	9.40	28.10	—	32.10	93.00	—
80.3STH	6 7/8	175	11 9/16	287	12 7/16	320	69.8	31.6	86.3	39.1	3/8 - 13/16	10 - 20	9 7/16	233	8 x 3/8	8 x 10	2.23	9.40	28.10	6.50	32.10	93.00

Put the smooth back in sailing



RECOMMENDED BY HARKEN

SAILKOTE™

High Performance Dry Lubricant

Use on hatches, drawers, sliding doors, sail tracks, mast tracks and slides, engine lower units, propellers and bow thrusters, fishing reel components and fly line, sails, battens and telltales, slider cars and tracks

- Repels water, dirt, salt and contaminants
- Reduces drag in air and water
- Clean, dry and easy-to-use
- Lasts up to 10 times longer than Teflon® additives, oil or wax-based lubricants

HULLKOTE™

High Performance Speed Polish

Use on fiberglass, metal, plexiglass and painted surfaces

- Cleans, polishes and protects
- Reduces drag and repels water
- Environmentally friendly citrus base
- Long-lasting, high-gloss finish
- Superior UV protection

ONE DROP™

Ball Bearing Conditioner

Use on ball bearing traveler cars and battcars

- Repels salt, dirt and other deposits
- Protects, lubricates and conditions bearing surfaces
- Reduces friction so balls to roll freely and evenly, greatly improving performance
- Only one drop needed

Team
McLube™
www.mclubemarine.com

Captive Reel Winches

Harken® Captive Reel winches, produced by James Nilsson Winchmakers, provide a convenient push-button solution for megayachts and large cruising boats. Featuring a one- or two-speed hydraulic motor, they are noted for their reliable design, detailed construction, and quality materials.

Components

Modular construction allows servicing without removing the winch assembly. The Hardkote-anodized frame and components are marine-grade 5083 and 6000 aluminum. Lubricated bearings are sealed and dry-run bearings are made with low-maintenance synthetics.

Gearbox

The hub-drive gearbox inside the 316 stainless steel drum uses precision gearing to time the lead screw for exact line placement.

Switches

Proximity switches prevent over-travel. Automatic failsafe switches shut down the winch completely.

Valve block and tensioner

Mounted onto or independently from the winch, the valve block incorporates a counterbalance valve, brake operating shuttle, and line tensioner. The tensioner spools line onto the drum evenly and keeps it clear of the winch housing.

Precise gearing provides even line take-up and release

Automatic disc brake between motor and gearbox is always locked unless system is activated

Choice of port or starboard lead exits

Line tensioner removes slack when spooling and unspooling



Redundant proximity switches prevent over-travel

Lead screw and sheave allow line to lie smoothly on the drum—even when slack



Power/Sheet Size Guide

Part No.	Pull		Hold		Min		Max		Max pressure		Flow rate	
	lb	kg	lb	kg	in	mm	in	mm	PSI	Bar	gal/min	l/min
CR22SL	3300	1500	3900	1800	1/2	12	5/16	14	2247	155	14.74	56
CR27SL	5292	2400	6615	3000	1/2	12	5/8	16	3045	210	15.79	60
CR33SLLT	2205	1000	2646	1200	1/2	12	5/8	16	2465	170	10.00	38
CR33SL	8820	4000	11025	5000	1/2	12	19/16	20	3480	240	23.68	90
CR33SLHD	11025	5000	15436	7000	1/2	12	13/16	20	2683	185	36.84	140
CR40SL	17640	8000	24256	10000	5/8	16	1	26	3118	215	52.63	200
CR40SLHD	24256	11000	28666	13000	5/8	16	1	26	3698	255	52.63	200
CR50SL	26461	12000	30871	14000	3/4	18	1 1/16	30	3118	215	68.42	260
CR50SLHD	33076	15000	39691	18000	3/4	18	1 1/16	30	3408	235	68.42	260

Loads and converted sizes are guides only. Winches are customized to application. Line speeds can vary with each winch and power configuration

Active Line Storage Guide

Line Ø		CR22SL		CR27SL		CR33SLLT		CR33SL		CR33SLHD		CR40SL		CR40SLHD		CR50SL		CR50SLHD	
in	mm	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m
1/2	12	56	17	115	35	131	40	157	48	213	65	—	—	—	—	—	—	—	—
5/16	14	46	14	98	30	112	34	131	40	184	56	—	—	—	—	—	—	—	—
5/8	16	—	—	89	27	98	30	115	35	161	49	200	61	276	84	—	—	—	—
11/16	18	—	—	—	—	—	—	101	31	141	43	177	54	243	74	220	67	312	95
3/4	20	—	—	—	—	—	—	92	28	128	39	157	48	217	66	197	60	279	85
7/8	22	—	—	—	—	—	—	—	—	—	—	141	43	197	60	177	54	253	77
15/16	24	—	—	—	—	—	—	—	—	—	—	131	40	180	55	164	50	230	70
1	26	—	—	—	—	—	—	—	—	—	—	118	36	165	50	151	46	213	65
1	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	138	42	197	60
13/16	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	131	40	184	56

Line storage lengths are guides only. Winches are customized to application

Accessories:

Ball Bearing Handles

These robust low-friction ball bearing handles match a wide range of cranking needs for both racers and cruisers. Handles feature a ball bearing grip that efficiently transmit power into the winch. All handles fit international standard winch sockets.

Locking vs. Plain

Lock-in handles are easy to engage and release with a thumb switch. Racers prefer plain handles because they are faster to insert.

Handle Length

10 in (254 mm) is the most comfortable handle length for most sailors. Published power ratios are based on this length.

8 in (203 mm) handles grind faster because they swing through a smaller circle, but power is reduced by 20%.

8 in (203 mm) handles are ideal for smaller boats and light air where speed is more important than power.

SpeedGrip

SpeedGrip handles are designed for the serious racer and effective in both light and heavy air conditions. The unique grip permits low-load fast cranking using the palm, and powerful two-handed grinding when loads are high. The low profile B8ASGLP is made for fast, one-handed cranking where speed is the concern, not power.



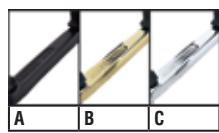
Molded urethane knob for comfortable feel and better grip when palming the handle

Handles feature an independent swivel between the knob and handle to keep the wrist straight and arms in the best power position while grinding



The B10DL handle features a lock-in switch and provides powerful two-handed grinding

Ordering Information:
Specify material by adding 1-letter code to part number after the number indicating length (example: B8L in aluminum = B8AL). See chart for availability.



Aluminum
Polished Bronze
Chromed Bronze

Part No.	Description	Material			Length (L) in mm	Height (H) in mm	Rise (R) in mm	Weight			
		A	B	C				A oz g	B oz g	C oz g	
SpeedGrip											
B8SGLP	Lock-in/low-profile	✓	—	—	8	203	4 13/16	122	1 1/4	32	14.1
B8SG	Lock-in	✓	—	✓	8	203	7 3/16	182	1 1/4	32	17.6
B10SG	Lock-in	✓	—	✓	10	254	7 7/16	188	1 1/2	38	21.2
Standard											
B8P	No-lock	✓	—	—	8	203	6 5/8	168	1 1/4	32	14.1
B8L	Lock-in	✓	✓	✓	8	203	6 5/8	168	1 1/4	32	14.1
B10P	No-lock	✓	—	—	10	254	7	178	1 1/2	38	17.6
B10L	Lock-in	✓	✓	✓	10	254	7	178	1 1/2	38	17.6
B10DL	Lock-in/double-grip	✓	—	—	10	254	11 1/4	286	1 13/16	46	21.2